How does a man take on the face of the faceless other thought to command the destiny of all things – and bring himself to be recognized by others as such? How does what is above and beyond men come to take a human form?

- Marcel Gauchet

Collect the moments one by one,
I guess that's how the future's done.
How many acres, how much light?
Tucked in the woods and out of sight

- Leslie Feist

University of Alberta

Water hearts and cultural landscapes: Practical understanding and natural resource management in the Northwest Territories, Canada

by

Kenneth James Caine

©

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Abstract

The Canadian North finds itself in a period of Canadian history with unprecedented levels of social and environmental complexity, political uncertainty and economic change. Within the Mackenzie River valley of the Northwest Territories, major industrial resource development projects are underway. At the same time, innovative natural resource management (NRM) governance institutions are being proposed. This dissertation explores how socio-cultural and political practices enable people to become institutional bricoleurs in resource management. From Délı̨ne, Northwest Territories, I examined how outside resource managers from federal and territorial governments, environmental non-government organizations, and aboriginal community leaders perceive, negotiate and practically apply one another's diverse understandings of NRM. This research is based on my active working group participation in two locally-driven collaborative projects: the Great Bear Lake Watershed Management Plan (GBLMP) and the long-term protection of an aboriginal cultural landscape for Sahoyúé-ʔehdacho (Grizzly Bear Mountain - Scented Grass Hills National Historic Site). Within these cases of emergent community-based co-management, an ethnographic approach was pivotal in exploring new approaches to NRM arising from the dynamic relations between local and outside institutional actors.

Recognition and incorporation of the notions of difference and practice establishes a space for potential positive social change. I suggest that the term 'practical understanding' encapsulates how communities and outside agencies

together perceive NRM. In the process of developing the GBL watershed management plan, creating a relational space resulted in shared understanding of resource management through narratives such as the story of the Water Heart. For shared understanding to be applied in the development of new formal institutions, however, it must be reconsidered as practical understanding and part of strategy in social practice. The political process of protection for Sahoyúé-?ehdacho demonstrated that strategies as engagement and practical disengagement are integral to practical understanding. The significance of this perspective of NRM is that it offers a cultural framework with which to explore institutional hybridity. Such a framework requires an examination of the ways in which we perceive, conceive and actively apply culture and power relations in resource management planning that is predominated by the increasingly globalized nature of natural resources.

Preface

My research journey began in two places. The first was from a deeply rooted feeling of unease in my role as a forester which led me to graduate school, and the second was through a river driftwood research job offer. Firstly, it was during an evening meeting in a small northern aboriginal community, the objective being to help local people better understand values-at-risk mapping that the government was undertaking, it dawned on me that all in all, we haven't really come that far in reconciling nature and culture. A consultant with whom I was working was taken to task in front of all the workshop members who perceived the meeting as just another 'post-consultation' lacking any meaningful participation. Despite being out of the spotlight, I felt the heat when a community member threatened to "shove a burning stick up his ass" in order to demonstrate the impact of forest fire on local peoples' lives. It was here that I began to feel that this meeting-gone-wrong was indicative of what was missing in government-community relations. Over the next five years working in the government and then later with a non-profit research and extension cooperative, I felt that dangerous tension over and over again. I knew that there had to be better way…so it was off to graduate school in order to explore this issue further.

> *To be surprised, to wonder, is to begin to understand* – my Jose Ortega y Gasset-inspired fortune-cookie message from the Boardroom Restaurant in Hay River.

The second key moment in my research came in the spring of 2002 where, while at the University of Alberta as a graduate student, I was offered a position as Research Assistant on an interdisciplinary research project on driftwood on the Mackenzie River in the Beaufort-Delta area around Inuvik, Northwest Territories. At the same time this offer was made, I was offered an enticing government opportunity to conduct a socio-economic impact assessment in mountain communities around Waterton National Park. Not something to easily pass up I thought at the time; it was relatively close to the university and my wife who was studying there, it paid very well, it would entail working with some leading forest researchers, and it would take place in one of the most scenic regions in the country. How could I not accept? Well, I didn't accept it but instead took on a research project that was planned as we went, would require independence and project management (along with the actual research), was paid quite a bit less, and was actually quite strange for a student of 'rural sociology'. But, it required working directly with a variety of people in a number of aboriginal communities that were on the brink of a major development; the Mackenzie Valley gas pipeline. Most importantly, it provided an opportunity to spend time in northern communities listening to people's stories of how natural resources (in this case: driftwood as fuel for heat, smoking hides and meat/fish; building materials, etc) were used and managed, and hopefully developing some possible research ideas in the process. Best of all, and suited to my research interests, this all took place in the Canadian North, and in a settled aboriginal land claim area. At the time I planned to use this as a jumping-off point to meet people, find a community in which to live with related research interests, develop a research question, expand relationships, and ultimately do my research. In retrospect, it really was an idealistic plan with next to nothing as a back-up in the event of failure. As the summer wore on I was completely inundated with the daily research and community issues with the driftwood project without any leads on research.

By the end of August with only one week left in my research reconnaissance plan, I was without a community, without a research question/project, and without any idea of how to explain this to my supervisors. Moreover, my one year funding was almost finished. My ideal plan was nearly in tatters. As I discussed my predicament with a friend in Inuvik, he suggested that I should take an aerial detour to the community of Délı̨ne on my way back to Edmonton. He had a contact there, and moreover thought the community was in a situation that spoke to the issues in which I was interested. So for lack of a better idea and curious about this fly-in Dene Aboriginal community situated on Great Bear Lake, I took up the challenge and made the arrangements. The only person who knew I was coming was a resident community researcher who met me at the airport and took me on a tour of the town – which, when I recall the images of that tour, bears no resemblance to what I know now. The minute I arrived and began meeting people, I began to have a good feeling about the community itself. I was lucky as most of the community leaders happened to be in town – chief, sub-chief, council members, and Land Corporation president. Most likely due to their curiosity about who I was, doors were opened and time was given to me and my ideas. I purposely didn't bring any research questions or proposals with me so as to create something new based on mutual interests. I did however talk about my personal values and research interests. I stated that I was interested in not only forms of applied research but also research that was informed by living in the community for at least through one year's seasons in order to better understand the issues and the people with whom I'm researching. I also stated that I was interested in living there first, getting to know people (and them, me) before developing a research project. Another ideal I guess. This led to some concern as it was a new approach for them and one that was not without its own tensions – *Who* would develop this project? *Who* would pay for it? *What* if it wasn't something that the community could participate in but was still interested enough to support on different levels? The questions kept coming but I perceived a sense of enjoyment, even play, in their questions. What ran through my mind at the time was not panic but the thought that maybe they haven't had a chance to do it this way before. It was a chance to experiment with not just research ideas and methods but with *methodology*.

Those few days in Deline combined with a return trip for a week in February to participate in the first Deline Knowledge Centre (DKC) workshop, convinced my wife and I to move to Deline in 2003. My involvement with the Deline Knowledge Centre Action Group confirmed for me that social change can be implemented at local levels and moreover affect broader structures and institutions. While developing my own PhD research I was involved in community planning for the DKC, community proposal writing for a Community-University Research Alliance project, and initiating a community – university research relationship with the University of Alberta and Alberta ACADRE Network. Over the course of the next two years I was to complete coursework; prepare for and write my PhD Specialization exams; develop my research proposal; and then complete my PhD Candidacy exam and begin the research. It was during this time period that my understanding of what might be collectively called "collaborative research" began to be formed; especially for thinking about how collaborative research can take on different mantles without losing sight of the ethical considerations informing research practices. It was with this body of knowledge firmly in mind that I began to think about and apply my particular approach to research to two community based resource management projects: the Great Bear Lake Watershed Management Plan and the protection of Sahoyúé-ʔehdacho aboriginal cultural landscape (previously called Grizzly Bear Mountain – Scented Grass Hills) as an NWT Protected Areas Strategy Candidate Area and National Historic Site. I had arrived at my research question where I would explore how aboriginal and non-aboriginal people use one another's knowledge in natural resource management and planning through the concept of 'practical understanding' - the interplay of shared understanding and social learning, power relations, and political engagement. This dissertation is the exploration of the development of practical understanding in natural resource management. My ethnographic research is based on my three year's of living in Deline – participating in daily life while at the same time contributing to each project as a working group member. It is a research project that was arrived at through a convoluted and often complex maze of social interactions.

Prefaces often include a reflection on what is gained through the writing of the text. Through this process I realized that my interactions and conversations with others reaffirmed the value of my own lived experience. It is therefore a way to share the complexity of our lives with strangers. As part of this dialogical approach I realized my responsibility in this research. That is, how our stories connect to the stories of people in the community and moreover, how our interactions shape the stories that are told to us. Like good science, it is a commitment to pay attention, to listen, to acknowledge differences and set aside predetermined questions and answers – not always so easy to do. Georg Simmel, the German sociologist, perhaps said it best in 1903 when he noted:

> *since such forces of life have grown into the roots and into the crown of the whole of the historical life in which we, in our fleeting existence, as a cell belong only as a part, it is not our task either to accuse or to pardon, but only to understand.*

Acknowledgements

Like all doctoral dissertations, my research is a product of the efforts of many people: in the community/research field, at the university, and at home. After living in Délı̨ne for three years, from 2003 until 2006, the only way that I could possibly thank all the people in the community would be to post the entire telephone directory here. I had the great fortune to learn from Délı̨ne First Nation chiefs Raymond Tutcho, Walter Bayha and Charlie Neyelle. Similarly, Raymond Taniton and Leroy Andre, Presidents of the Délı̨ne Land Corporation, spent countless hours explaining Deline's direction, discussing my research, and opening doors to new opportunities. North Slavey interviews and translation with elders was done by Irene Betsidea, Edith Mackeinzo, and Jane Modeste. Elders Alfred Taniton, Rosie Sewi, Leon Modeste, A.J. Kenny, and the late Paul Baton were models of leadership and helped me to focus my research.

In the interstices of formal research lay the space where I really learned about Sahtugot'ine life, both traditional and contemporary. If ever I had a home in Délı̨ne, it was at Morris and Bernice Neyelle's house where meals of caribou, moose, and lake trout were always on offer and a room was ready for me when I needed a place to stay. Yet, it was the sense of family that the Neyelle extended family offered, which made our life in Délı̨ne so wonderful. My wife and I lived in six different houses while in Délı̨ne and as a result, we had many neighbours; some of whom became more than neighbours. Dennis Kenny and Tracey Orbell, Bruce Kenny and Verna Firth, Gloria and Danny Gaudet, and David and Patricia Modeste always made me feel a part of their family gatherings. Leroy and Diane Andre, David and Patricia Modeste, Dave and Martina Taniton, Irene Betsidea, and Jane Modeste and their families made me feel welcome and told me many valuable stories along the way. My research experience was enriched through the many people who showed me how they lived both in town and in the bush. Bruce Kenny, Morris Neyelle, Gordon and Dave Taniton, and David Modeste were the best of wood cutting partners, fishing and hunting companions, and my teachers on the land.

When I first arrived in Délı̨ne, Dr. Deborah Simmons, took me under her wing, gave me her 'grand tour of town', provided a place to stay, and introduced me to the community. The collegiality and friendship of Deb Simmons and Mike Salomons is a rare and cherished thing. The Délı̨ne Knowledge Centre Action Group was the ideal place for exploring my research ideas and I thank all the people who were part of this grand idea and are continuing its grassroots work. The trials and tribulations of doctoral field research were balanced by my Saturday night youth shinny hockey program, coaching the Délı̨ne Little Chiefs hockey team, and my place on the Délı̨ne Men's hockey teams. There are so many other places that research relationships are developed – it was on the ice playing and in Sahtu arenas with the parents of the children I coached, that my relationship with Délı̨ne was established…Mahsi Cho.

A unique aspect of my research was in developing relationships with those people from organizations outside of Délı̨ne. Key leaders such as David Livingstone, Margaret Archibald, Katherine Emmet, Alan Fehr and Karen Hamre welcomed my research. Greg Yeoman, Shelly Johnson, Kris Johnson, Shannon Ward, Josie Weninger, Ed Coulthard, and Erica Janes were incredibly optimistic and diligent working group members. Project facilitators Tom Nesbitt and Anne Jane Grieve made my presence and participation in both case studies feel valued. My thanks for the use of their brilliant maps goes to Alasdair Veitch, Simon Kearney, John T'seleie, and Lillith Brook.

Although I spent more time in Délįne than in my home Department of Rural Economy, many staff and students supported me in innumerable ways. My supervisors, Dr. Naomi Krogman and Dr. Marty Luckert, gave me the intellectual space I needed to develop my research. They were always there to support and encourage me, and mentor and guide my way when I needed it. As a tandem, they offered unique supervisory approaches that I benefited from at different times in my doctoral program. Dr. Mark Nuttall, my dissertation committee supervisor, always found time to meet with me and discuss my research and future options. I was extremely fortunate to have Dr. Nancy Gibson and Dr. Peter Boxall (Chair) on my oral defence committee. Dr. Richard Howitt (External Examiner) stimulated my thinking through his writings long before we ever met. Dr. Ellen Bielawski, Dean of the Faculty of Native Studies, graciously provided me with a quiet office for writing and often stopped by to swap northern research stories. I am indebted to Rural Economy Chair Dr. Ellen Goddard who went out of her way to continually push me towards bigger and better things.

My studies, research and dissertation would not have been possible without the following financial support and professional development: Pierre Elliott Trudeau Foundation Scholarship, Social Sciences and Humanities Research Council Doctoral Fellowship, Izaak Walton Killam Memorial Scholarship, Alberta ACADRE Network Doctoral Scholarship, Northern Scientific Training Program Grant, Canadian Circumpolar/Boreal Alberta Research Grant, and the Al Brennan Memorial Graduate Scholarship.

A number of Rural Economy students became close friends, thereby supporting the theory of propinquity. I was introduced to strange economic equations, Chinese culture, and spicy food and stories from my fellow 557b office dwellers. The result being that the grind of doctoral studies was smoothed by my 'little sister' Jing Zhang, Jeji Varghese and Getu Hailu, Trena Allen, Lori Srivastava and James McQueen, Jean and Joe Liu, Brian Joubert, Bryn Politylo, Eva Bogdan, Raila Salokangas, Susan Robertson, Victoria Laidlaw, Yulian Ding, Wenzhao Huang, Jun Yang, Yu Li, Wanjing Hu, and Emily Huddart Kennedy.

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If anyone deserves an honourary PhD, it is my mother, Irene. Growing up, I learned more from her than I can ever qualify sociologically. Reflecting on how she, a single parent, raised six children, studied at night to become a librarian, started her own business to support her world travels, and in the process, instill in me the importance and love of reading exceeds anything I've ever learned. Every phone call or visit with my mother during my research contained the exact same positive encouragement that I received throughout my life. It is an education that cannot be quantified. Thank you so much, Mom.

My research trail paralleled my wife, Vera's, traverse of her own doctoral terrain. Together, the long evening walks and reading, discussing, and writing were made less stressful and more importantly enjoyable. Your support, words of encouragement, and carefully placed kick in the pants at times, made my academic journey a positive one. The birth of our son, Felix, during my research was an amazing life experience that heightened my academic experience. His inquisitive nature and boundless energy gave me the boost I needed to continue my research. More importantly, it gave me the desire to continue the process of life's education with him.

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List of Abbreviations

AIP	Agreement-in-Principle
CBRC	Community-Based Resource Co-management
CBRM	Community Based Resource Management
CPAWS	Canadian Parks and Wilderness Society
CPAWS-NWT	Canadian Parks and Wilderness Society, NWT Chapter
DIAND	Department of Indian Affairs and Northern Development (Government of Canada)
DFNG	Délı̨ne First Nation Government
DFO	Department of Fisheries and Oceans (Government of Canada)
DKC	Délı̨ne Knowledge Centre
DLC	Délı̨ne Land Corporation
DRRC	Délı̨ne Renewable Resource Council
DSGO	Délı̨ne Self Government Office
DUT	Délı̨ne Uranium Team
ENR	Department of Environment and Natural Resources (GNWT)
GBL	Great Bear Lake
GBLAC	Great Bear Lake Advisory Committee
GBLMP	Great Bear Lake Management Plan
GBLWG	Great Bear Lake (Watershed) Working Group
GBLTWG	Great Bear Lake Management Plan Technical Working Group
GNWT	Government of the Northwest Territories
INAC	Department of Indian and Northern Affairs Canada (Canada)
ITI	Department of Industry, Tourism and Investment (GNWT)
JRP	Joint Review Panel (part of MVEIRB processes)
Joint Working Group	Sahtu Heritage Places and Sites Joint Working Group
Land Claim	*Sahtu Dene Métis Comprehensive Land Claim Agreement*
MOU	Memorandum of Understanding
MVL&WB	Mackenzie Valley Land and Water Board
MVRMA	Mackenzie Valley Resource Management Act
MVEIRB	Mackenzie Valley Environmental Impact Review Board
NWT	Northwest Territories
NWT-PAS	Northwest Territories Protected Areas Strategy
PAS	Protected Areas Secretariat (or Protected Areas Strategy)
Research & Monitoring Plan	GBL Ecological and Cultural Research and Monitoring Plan
RWED	Department of Resources, Wildlife and Economic Development (GNWT); in 2005 RWED was partitioned into ITI and ENR
SEWG	Sahoyúé-ʔehdacho Working Group
SLUP	Sahtu Land Use Plan
SLUPB	Sahtu Land Use Planning Board
SLWB	Sahtu Land and Water Board
SMZ	Special Management Zone
SRRB	Sahtu Renewable Resource Board
SSA	Sahtu Settlement Area
SSI	Sahtu Secretariat Incorporated (also Sahtu Dene Council)
STC	Sahtu Tribal Council

Chapter One:
Introduction

> In order to make progress, we have to move sideways and change the subject of concern. Instead of the obsessions of the past – with growth, with a scientific-technological world, with more government – we have to seek different horizons of economic, social, cultural and political aspirations. The fact that this will not be the result of deliberate government action, but will require new attitudes on the part of individuals, groups, firms, organization, is itself a part of the change which a new socio-economic climate requires (Ralf Dahrendorf).

> Anyone who has worked in a formal organization – even a small one strictly governed by detailed rules - knows that handbooks and written guidelines fail utterly in explaining how the institution goes about its work. Accounting for its smooth operation are nearly endless and shifting sets of implicit understandings, tacit coordination, and practical mutualities that could never be successfully captured in a written code (James C. Scott).

The passages above suggest that while fundamental problems within institutions are as great a concern today as they were 20 years ago, the idea of recognizing and incorporating ‘difference’ presents a space for potential positive social change. These passages also suggest that power, conflict, and domination, while integral to society, are but one part of a multifaceted dimension describing human experience and social relations. Exploring how people understand one another can reveal opportunities for institutional change. Such opportunities might arise from an examination of one another’s perceptions and understanding of an issue while at the same time examining accompanying power relations and structures. How people understand one another seems to be integral to nearly all social science research, yet is little-explored in the management of natural resources (NRM) at the landscape level. In many remote regions where economic factors are strongly tied to socio-cultural issues, for example in the Canadian North where traditional knowledge is given primacy, examinations of institutions is typically undertaken from the epistemological perspective of how do *we* know what we know. It is infrequently explored from the perspective of how we perceive and understand one another in the context of actual practices.

In what follows I explore what I refer to as practical understanding. My concern arises out of my personal experiences as a resource management practitioner working around, in, and with northern Canadian rural communities where social and cultural realities are as relevant as good environmental governance but often purposefully separated. In one sense this dissertation explores why this divide has been constructed as artificial when it is so obviously one and the same in practice. The best way I could think to do this was to live in a place where people were struggling to create new NRM institutions from within old ones. A multiplicity of powerful actors were involved which allowed me to explore the practical side of shared understanding. The result is an ethnographic approach to research within a politicized setting of early NRM institution development.

This dissertation studies shared understanding in social practice from the standpoint that improving social and economic conditions requires investigation and consideration of the social dimensions of NRM. What is also referred to as logics of action (DiMaggio 1997), logic of practice (Bourdieu [1980]1990) and structuration (Giddens 1984), social practice constitutes the dialectical relations between individuals and their societies. In other words, practice explores the individual's cognitive and bodily experience of the lived-in world and their action upon that world.[1] The result is an academically appealing and rich approach to exploring shared understanding within the realm of culture and institutions.

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[1] Reckwitz (2002:250) suggests practice is a "routinized type of behaviour which consists of several elements, interconnected to one other: forms of bodily activities, forms of mental activities, 'things' and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge."

Within the context of a post-land claim and pre-self government era in the Northwest Territories (NWT), aboriginal communities are advancing new perspectives on NRM based on a relationship between environment, culture, and health (Ellis 2004).[2] Substantial change in NRM planning and policy development is occurring as community-based natural resource management (CBRM) is increasingly being promoted by communities and governments alike. Resource management programs that use local, traditional and western scientific knowledge are perceived as integral towards local and societal goals of sustainability (Nakashima 1998). Seen through the lens of sustainability, CBRM has the potential to link social justice to both biological diversity and economic development, where rights, livelihoods, and cultures of marginalized populations are respected and built into resource management planning and plans (Brosius et al. 1998). Although attention is increasingly focused on NRM research at larger institutional scales, there remains an emphasis on local capacity-building and indigenous definitions of self and community. As such, a fine-grained analysis and understanding of the relationship between human activity and the natural environment is necessary (Berkes 2004, Tuhiwai Smith 1999, Beckley et al. 2002).

NORTHERN RESOURCES, NORTHERN RELATIONSHIPS

Interpretive explorations of the relationship between people and their environment is frequently described using the term 'community'. Yet this term presents a challenge as it is often uncritically understood and too often accepted as simply a small spatial unit with uniform social structure determined by common interests and shared norms (Agrawal and Gibson 2001, Brosius et al. 1998). Instead, it may be more relevant to understand community, and CBRM dynamics, through the multiple actors with multiple interests comprising it, the processes through which these actors interrelate, and the institutional arrangements that structure their interactions (Agrawal and Gibson 2001, Lane 2002). Research that examines new NRM structures in the Canadian North therefore might benefit from a focus on actors, processes, and institutions.[3] Recent studies of co-management and common property resources in the Circumpolar North[4] demonstrate attention given to the practical relationship between rural people and governing institutions, and how those bureaucracies impact upon local communities (Nadasdy 2003, Bateyko 2003, Sejersen 1998, Ellis 2004, Stevenson 2004, 1997). Much of this literature suggests that a common challenge to rural communities is that governments tend to prescribe resource management objectives and goals to fit within formal-bureaucratic institutional objectives that may conflict with local or community level objectives (Epp and Whitson 2001, Nadasdy 2003, Kruse et al. 1998, Stevenson 2004).

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[2] Aboriginal peoples in Canada are composed of three different ethnic groups: Indian, Inuit, and Métis (*Constitution Act, 1982*). However there exists a great deal of diversity in terms of histories, languages, and cultures with groups. The preferred self-designation of 'First Nations' indicates Indian people's continued sovereign aboriginal rights as well as their relationship with the Canadian state and society, replacing the earlier government-designated term of 'Indian Band'. The terms *Aboriginal* (and the lower case term, aboriginal, used more descriptively) and *Indigenous* refers to all Aboriginal peoples, and will be used interchangeably. *Aboriginal* is generally used in a Canadian context.

An often unaddressed issue in NRM emerges in this literature: that is whether, in the process of designing and carrying out a given policy, plan, or program, outside organizations' conceptions and understanding of research and management are compatible with local underlying knowledge systems or epistemology. One approach to this compatibility issue might be to examine the ways that external organizations describe communities and their resource management systems (Brosius et al. 1998, Long 1992). Such a unidirectional approach however, limits a study of shared understanding in NRM. An initial yet crucial step in rethinking collaborative resource management is to explore the dynamics and practicalities between local and outside perceptions and understandings of NRM; what I consider practical understanding. Such research centers on social practice and practical outcomes in NRM without losing sight of - or becoming overwhelmed by - inherent social dynamics such as power relations.

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[3] The term 'institution' is frequently used yet often without precise definition. Sociologically speaking, 'institution' describes the social practices that are regularly and continuously repeated, that are sanctioned and maintained by social norms, and that play a significant role in social structure (Abercrombie et al. 2000). With respect to NRM, institutions are informal constraints (norms of behaviour, conventions, and self-imposed codes of conduct) and formal constraints (rules, laws, and constitutions) devised by humans in order to structure human interaction (Berkes and Folke 1998, Agrawal and Gibson 1999). Cleaver argues for institutions as embodiments of social process (Cleaver 2000). She suggests the more distinguishing differentiation of 'bureaucratic' and 'socially embedded' (Cleaver 2002). Bureaucratic institutions are formal arrangements based on explicit organizational structures, contracts and legal rights, often introduced by governments. Socially embedded institutions in contrast, are based on culture, social organization, and daily practice, but not necessarily informal (Cleaver 2002).

[4] Notwithstanding geographic, political and semantic differences, the terms *North*, *Arctic*, *Subarctic*, and *Circumpolar* regions are similar and so used interchangeably in this dissertation.

A need exists for alternative ways of analyzing and thinking about NRM (Howitt 2001, Lockie et al. 2001). One technique is to consider practice, interpretation and theory as inseparable, and so reconsider the primacy of a single epistemological perspective. In reviewing the rich and diverse NRM literature, it is clear that one's perspective in NRM research depends upon the epistemology underpinning an analysis. Terrance Cook (1994) however, observes that the distinctive aims and criteria of praxis, prediction, and interpretation should not be seen as separate or even as layered. He suggests that an alternative presentation and method may exist; one that is complementary and dialectical which can be conceptualized as overlapping during certain times and in given spaces. "Perhaps we should not even try to rank them [epistemological approaches to research] but view them as arrayed horizontally on a circle or triangle, and shift from one vantage to the next around the periphery when analyzing larger questions of social science"

(Cook 1994:123). Cook's call for a new approach is consistent with a model of science which maintains that one can choose among paradigms, in which several different approaches can legitimately co-exist in social scientific inquiry (Patterson and Williams 1998).

In light of the potential importance of shared understanding in NRM,[5] my research takes a critical social scientific position of the dialectic interplay between meaning and structure (Morrow 1994). Specifically, this ethnographic-based dissertation explores the ways community leaders and resource managers from federal and territorial governments, and environmental non-government organizations (ENGO), perceive, negotiate and practically apply one another's diverse understandings of NRM. Julie Cruikshank, working in the Yukon and reflecting on Northern NRM, observed a recurring similar issue: how do different knowledge systems 'connect' with bureaucratic practices where most NRM research is now located? (2005:256). My research examines shared understanding in NRM within the development of new NRM institutions such as co-management in the Canadian North. As with any research that focuses on social practice, history is a significant factor. This research therefore also takes place and is informed by the historical accumulation of a Canadian preoccupation with northern NRM development.

The Canadian North currently finds itself within a period in Canadian history highlighted by a level of social and environmental change not seen since the 1950s. The inter-dynamics of economic, political, environmental, and cultural forces are evident within increasing industrial resource development, land claims and self-government, the beginning of northern resource devolution, concerns over climate change, and increasing cultural change in the North (Smith 1998, Bielawski 2003a). Not surprisingly, there is a corresponding body of literature developing on the cooperative and conflictual relationship between state and society.

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[5] The issue will be more fully developed in subsequent chapters.

RESOURCE MANAGEMENT: TWO CASE STUDIES

> *At first I thought I was having a hallucination after having driven for over 21 hours by highway and then 10 hours on winter road, from Edmonton on my way to Délı̨ne. It was January and I had just turned off from the busy main winter road at "junction" near Tulita. I was looking forward to the next few hours of serenity and beautiful scenery as the winter ice road crossed frozen lakes and muskeg while following the Great Bear River before making its way across Great Bear Lake to Délı̨ne. I also expected to be greeted by the caribou that usually travel the winter road to move from protective open areas of lakes to the lichen-rich muskegs. Instead of caribou I'm being treated to the sight of cats. It was a 'cat-train': large, open-cab Caterpillar bulldozers crawling along the winter road hauling Atco trailers on skids down the snow covered road. Here I am, stuck in a truly northern traffic jam at -37°C. Each bulldozer was pulling four or five large skids on which rested housing trailers, seismic (oil and gas detection) equipment and cook shacks, all on their way to Great Bear Lake and drilling sites beyond. All I could think of was what the Sahtugot'ı̨ne elders would say upon seeing this early indicator of industrial development come towards them from across the lake (not to mention the talk of ensuing changes to the land and to their lives). I suppose it's nothing new; they've seen this kind of change before and seem to have adapted. But the scale and rate of change will be much greater when the Mackenzie Valley gas pipeline kicks into high gear.*[6]

Co-management, as a NRM institution, is a somewhat unintended consequence of historic resource development promises and policies for the Canadian North. The results of the groundbreaking Berger Inquiry into the proposed development of the Mackenzie Valley Pipeline in 1977 led to the initiation and completion of a number of aboriginal land claims. Land claim negotiations took place in the wake of a moratorium placed on the national 'Roads to Resources' development policy. One key result was that a variety of NRM co-management structures[7] were engineered between the federal and territorial governments and aboriginal groups within the new governance system.[8] The concept of co-management has arguably been successful in the NWT; so much so that it is foundational in shared ownership of pipelines between aboriginal governments and resource industries,[9] not to mention an impetus for industry-community negotiated agreements for the benefits from impacts and access to natural resources on aboriginal-owned lands.

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[6] Field notes. The pipeline referred to here is the proposed Mackenzie Valley Gas pipeline, the largest proposed industrial development in Canadian western Arctic history.

The two cases that this dissertation is based upon are related to natural resource development in the NWT of the Canadian North. With increasing mineral, oil and gas development in the Sahtu region of the western Arctic, communities, governments, and environmental organizations have all raised concern about environmental protection and resource conservation. The general approach to sustainable economic development in the NWT is through conservation and land use planning. Land use planning has been institutionalized in the 1993 *Sahtu Dene Métis Land Claim Agreement*[10] through the creation of a co-managed Sahtu Land Use Planning Board (SLUPB). Although a draft Sahtu regional Land Use Plan (SLUP) is in early stages of public review at the time of this writing, rapid exploration is taking place in the Great Bear Lake (GBL) watershed. Below I provide short descriptions of each case, with further details in subsequent chapters.

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[7] Chapter two presents a comprehensive discussion of how co-management has evolved in the North. At this point, suffice to say that resource co-management typically represents power sharing in natural resource planning and decision making between local-regional managers and government agency managers.

[8] The term governance is used in many ways and with a variety of emphases leading to multiple definitions. Following Stoker (2004:3) I see governance as the rules and forms that guide collective decision-making and thus allow for public-state, market, network, and communication-negotiation perspectives.

[9] For example, the multi-billion dollar Mackenzie Gas Project pipeline is one third owned by the Aboriginal Pipeline Group, a consortium of Mackenzie Valley First Nations.

[10] For brevity's sake I will refer to this as the "land claim"

One of my case studies consists of the development of a community-based management plan for GBL and its watershed (GBLMP) as a *de facto* sub-regional land use plan and proposed stand alone section of the SLUP. The GBLMP also reflects the interests of the community of Délı̨ne in taking a central role in the planning and management of the GBL watershed, most notably for water, caribou, fish, and cultural resources. Yet, a strong driver for the management plan has been concern over the slow development of the SLUP in contrast with the rapid resource exploration in the district. Great Bear Lake has historically been managed by the federal departments of Fisheries and Oceans (DFO) and Indian Affairs and Northern Development (DIAND), and natural resource departments in the territorial Government of the Northwest Territories (GNWT). Consequently, a shift in management is significant from a policy perspective.

The second studied case is the proposal of an aboriginal cultural landscape for protected area status within a formal process of conservation planning.[11] The National Historic Site (NHS) of Sahoyúé-ʔehdacho consists of two large peninsulas extending out into GBL.[12] These areas are untouched by development and hold traditional and spiritual significance to the Sahtugot'ine people of GBL. Identified as a significant area for protection by the Dene in the land claim, and commemorated as such by Parks Canada, they are the first protected areas candidate in the 1999 NWT Protected Areas Strategy (NWT-PAS). Parks Canada is the sponsoring agency under the NWT-PAS. A group of government and community organizations were formed to create the Sahoyúé-ʔehdacho Working Group (SEWG) to complete the steps of the NWT-PAS.

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[11] The second case is, in essence, cultural resource management. As subsequent chapters will reveal however, nature and culture as discussed in these two cases are inseparable. As such, I use the commonly held term natural resource management to encompass them both.

[12] Sahoyúé-ʔehdacho was previously called *Sahoyúé-§ehdacho (Grizzly Bear Mountain and Scented Grass Hills), National Historic Site, NWT.* Like much of the Sahtugot'ine North Slavey dialect of the Dene written language, a widely accepted spelling of Sahoyúé-ʔehdacho has been problematic. Since its inception as a NHS and later as a community-proposed candidate protected area, the formal spelling of the name has undergone many changes for a number of reasons: as simple as lack of acceptable typographic equivalent short of implementing a special Dene-language typeface, to a lack of agreed upon spelling by Dene language specialists and linguists. I use "Sahoyúé-ʔehdacho" (with a Lucida font symbol similar to that of the Dene-language diacritic for a full glottal stop), which is the most recently accepted Dene and government spelling, and moreover supported by Sahtugot'ine North Slavey language specialists.

The two cases I use for this dissertation both address GBL management and Sahtugot'ine culture yet are different in terms of conservation efforts, and level and type of protection sought. In addition, the two cases represent community-based conservation efforts with multiple government actors but occurring at different stages of progress. Délı̨ne's interest in the long term protection of Sahoyúé-ʔehdacho has taken over 15 years yet the process is just entering initial stages of negotiation for protection levels and management planning with Parks Canada. This process illustrates how a community strategically utilizes the legislative tools at hand to further their interests. The GBLMP, in contrast, jointly originates in community governance objectives including greater management responsibilities for GBL, the perceived failure of past regional land use planning, and current resource exploration impact concerns. The GBLMP process, part of the regional land use plan development and situated within a legislated co-management requirement, is flexible in design and external partnerships. Together, the cases contribute a cohesive picture of the relationships and interests amongst community representatives and outside governmental and non-governmental actors. This dual case scenario allowed me to investigate my research question while living in Délı̨ne and interacting with participants to critically examine the relationship between a science-based process of NRM planning and local aboriginal conceptions of resource management.

DÉLĮNE, WHERE THE WATER FLOWS

Délįne, previously known as Fort Franklin,[13] is a hamlet consisting of 543 people, of which more than 90 percent are Dene or Métis Aboriginal peoples and beneficiaries of the Sahtu land claim (GNWT 2007). The community is located 550 km northwest of Yellowknife, the capital of the NWT. It is situated within the subarctic Boreal Forest transition zone; approximately 100 kilometres south of the Arctic Circle (see Figure 1). Located near the outflow of the Great Bear River on GBL, Délįne is accessible only by air except for two to three months when a winter ice road is open to vehicles.

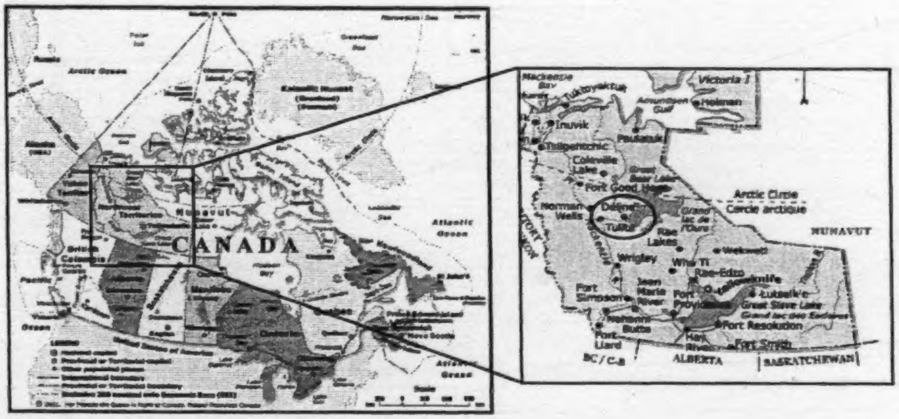
CANADA
Arctic Ocean
Atlantic Ocean
Pacific Ocean
Nunavut
Victoria I
Mackenzie Bay
Tuktoyaktuk
Amundsen Gulf
Holman
Inuvik
Paulatuk
Tsiigehtchic
Colville Lake
Great Bear Lake
Fort Good Hope
Arctic Circle
Cercle arctique
Norman Wells
Délįne
Tulita
Grand lac de l'Ours
Rae Lakes
NUNAVUT
Wekweti
Wrigley
Wha Ti
Rae-Edzo
Yellowknife
Fort Simpson
Jean Marie River
Fort Providence
Lutselk'e
Great Slave Lake
Grand lac des Esclaves
Fort Resolution
Nahanni Butte
Fort Liard
Hay River
Fort Smith
BC/C-B
ALBERTA
SASKATCHEWAN

Figure 1. Map showing Délįne relative to Canada and the Northwest Territories (Used with permission: Natural Resources Canada)

The Sahtugot'ine ("people of bear lake") are primarily descendents of Dogrib and Hare, as well as Slavey and Mountain Dene groups - northeastern Athapaskan speaking peoples - who came into increased contact with one another after the establishment of the fur trading posts near GBL in 1821 (Osgood 1932, Gillespie 1981, Morris 1972, Rushforth 1977). The first half of the nineteenth century saw a number of small trading operations around GBL. Up until 1950 however, when the Hudson's Bay Company re-established its store at Fort Franklin, most fur trading took place in Fort Norman (now called Tulita) at the Great Bear River's confluence with the Mackenzie River (Gillespie 1981).[14] The re-establishment of the company store in Délı̨ne as a primary center of trade, and subsequent Roman Catholic Church and government services, signaled the formalization of the community as a hamlet.[15] In 1993 the land claim was signed leading to the creation of resource co-management boards addressing economic development, land use planning, wildlife management, and environmental impact assessment in the region. The land claim also required the Government of Canada to negotiate self-government with Délı̨ne for the Délı̨ne District providing for more culturally appropriate arrangements of governance than state co-management.[16]

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[13] Délįne means "where the waters flow" in the North Slavey language, a reference to the nearby headwaters of the Great Bear River, a major travel corridor as well as fishery for the Sahtugot'ine Aboriginal people. The Arctic explorer, Sir John Franklin over-wintered in Délįne in 1825 during his ill-fated second arctic expedition searching for the Northwest Passage. The present site of Délįne is known for its highly productive fishery (lake ciscoe ('herring'), lake trout, and nearby lake whitefish) as well as proximity to Bluenose East barren lands caribou and woodland caribou herds.

Statistically, Délı̨ne is one of the most traditionally active communities in the NWT. In 2004, 95.8 % of Délı̨ne aboriginal residents 15 years of age or older spoke an aboriginal language well enough to carry on a conversation. With respect to resource use, approximately 43% of Délı̨ne residents 15 years of age or older hunted or fished, and 39% of households reported that most or all (75% or more) of the meat or fish consumed is harvested from the NWT (GNWT 2007). These statistics are illustrated by the most recent GNWT Bluenose East caribou harvest records in which the community of Délįne, with a population representing only 21% of the entire Sahtu region, harvested 57% of all Bluenose East caribou in the region from 1999-2001.[17] What the above statistics suggest is a strong traditional link to culture and language as well as an economic dependence on surrounding resources, particularly caribou. In essence, management of the resources which sustain the Sahtugot'ine culture remains integral to community development efforts.

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[14] From 1863 to 1869 Fort Norman was moved to GBL as several expedition posts were in operation around the lake (Gillespie 1981).

[15] Rushforth (1977:147), examining the work of a number of authors, synthesizes the socio-economic changes that have taken place among most northeastern Athapaskans since contact with Europeans into (1) individualization of subsistence (2) increase in sedentism and (3) the development of a dual (subsistence and cash-trade) economy (see Appendix A for a more comprehensive historical timeline)

[16] The Délı̨ne Self-government Agreement in Principle (AIP) was signed in August 2003 and is set to be implemented in 2008. It sets out a new governance system through the Délı̨ne First Nation Government (DFNG). The Délı̨ne self-government AIP is the first to be negotiated on a community basis in the Sahtu Region under the land claim.

RESEARCH QUESTION AND OBJECTIVES

> Some Dene say the Earth is our body. Others say the land is like a big warehouse. In the old days, they thought things would never change. But the change that came was so strong that it changed the Dene way of life. It was a change that went its own way without any control by Dene. The government started the change in order to help people. But the problems have gotten bigger and bigger. Education has meant that children don't listen to their parents. Family relationships are changing constantly. This is hard for everyone. Few Dene hunt and trap full time, so their relationship to the land is also changing. They live in communities, so they need jobs to make money. But there aren't many jobs. The government isn't to be blamed for everything that changed our people's lives. All kinds of things worked together to change the Dene, but the government started the process of change. Some things do not change. *Many younger Dene no longer live the traditional life, but they know it and understand its values. They try to use this heritage in their work, and to maintain control over the changes that affect our land and people. They are creating Dene lives in new ways* (Blondin 1990:246, my emphasis).

The Sahtugot'ine elder George Blondin's precise prose and very sociological synopsis of the changing northern social and cultural landscape illustrates a key facet of my research question. My research reflects his concern, like many others, for the ways that Aboriginal peoples' relationship with the land is changing. However my research expands this question to include actors operating at broader scales.

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[17] In the three years from 1999-2001 Délįne residents harvested an average of 1,615 caribou/year with a replacement value of CDN$ 1,615,000 (4,844 caribou with a total value of CDN$ 4,844,000 over three years) (Veitch 2005).

My research addresses the question of how outside resource managers from federal and territorial governments, ENGOs, and Déline community members perceive, negotiate and practically apply one another's diverse understandings of natural resource management. More specifically, within the development of new resource management institutions: How do *outside* organizations and their members perceive local resource management systems and their epistemological underpinnings? At the same time, how do *local* organizations and their members perceive those outside organizations that are responsible for the management of lands and resources for the benefits of all Canadians? A key question that derives from the above is: what is the relationship between a practice-based perspective of shared understanding and the development of new resource management institutions? The objective of my research was to extend current concepts and practices beyond bureaucratic co-management with regards to power-sharing, social learning, and trust. To do so, an issues-based ethnographic approach was undertaken to develop an understanding of the roles and interactions between community and outside interests, actors and institutions. The cornerstone of this research is the institution of resource co-management. Therefore an objective was to explore, using these cases studies, potentially new resource management institutions as a means of rethinking northern NRM practices.

SIGNIFICANCE OF ANALYSIS

The shift away from centralized management of resources to recent policy in which the public are encouraged to take a more active role in environmental planning and decision-making provides a unique opportunity for study (Brown-John 2006). At the same time, in conservation and watershed management and planning, northern government agencies are altering their policies to consider cultural pluralism in management practices previously dominated by ecological factors (Neufeld 2007). The NRM case studies presented here provide an ideal research context and opportunity within which to increase understanding of how an aboriginal community envisions itself and realizes its influence in ecosystem management and CBRM planning within a predominantly formal state management system. Due to the co-managed nature of resources in the Sahtu, the Sahoyúé-ʔehdacho and GBLMP cases are ripe for examination of how state planning and management systems might adapt (or be influenced) to take advantage of the knowledge and experience arising from traditional land use.

A substantial body of bio-physical science literature exists for the GBL region (Sirois 2001, MacDonald et al. 2004). The lake is significant for a number of local socio-cultural and economic reasons, and its physical proximity to the Mackenzie Valley and proposed large scale industrial developments means it will likely undergo many changes. Despite the high potential for social, ecological and economic change little social scientific research has been conducted, apart from co-management evaluations that comprehensively examine the cognitive relationship between resource decision-makers.[18] Comprehensive interpretive analyses in the social sciences are frequently undertaken through ethnographic lenses. The only conventional ethnography of the Sahtugot'ine was completed by the anthropologist Cornelius Osgood in the first part of the 20th Century

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[18] Carthew (2007) and Bateyko (2003) have most recently evaluated co-management in the Sahtu; specifically the Sahtu Renewable Resource Board with respect to wildlife management. Grieve (2003) however, explored Sahtugot'ine leadership capacity in Délįne in the context of cultural landscapes.

(Osgood 1932). Other anthropologists have contributed ethnographic-based research to the literature[19] while sociological research examining contemporary NRM practices in the NWT is a recent trend.

This research contributes to the rural and natural resource sociology literature by increasing appreciation of the association between shared understanding and social learning, power relations, and technical planning practices in NRM. Many of the above research areas have been individually explored in northern NRM. The standpoint of practice, however, may provide a new way of thinking about NRM institutional design within current institutional theory. In order to examine practice where "bodies are moved, objects are handled, subjects are treated, things are described and the world is understood" (Reckwitz 2002:250), an appropriately broad methodological vehicle is need. This research takes an ethnographic approach to exploring resource management through a study of practice. The practice in this case consists of how individuals share and apply their NRM knowledge in the development of new co-management structures. An ethnographic approach allows the researcher in-depth access to the planning processes and larger practices utilized, while being able to delve into how shared knowledge is influenced by structural factors.

My research in essence explores what one Sahtu leader was troubled with after listening to an overly technical presentation at a renewable resource co-management board meeting made up of community leaders: "something is missing here…this is science without connection."[20] My research explores the practical application of the social connections made among natural resource managers within institutions. It examines what "the good player, who is as it were, the embodiment of the game, is continually doing what needs to be done, what the game demands and requires" (Bourdieu 1985:113).

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[19] See for example, Rushforth (1977, 1984, 1986, 1991, 1992) on Bearlake Indian experiential knowledge, kinship and social structure; Rushforth and Chisholm (1994) on Sahtugot'ine cultural persistence; and Morris (1972) on Great Bear Lake pre-contact historical demography and change.
[20] Field notes. February 7, 2006, Délįne.

DISSERTATION OUTLINE

As indicated by the two observations above - one from a local level and one theoretical - making a connection between social and natural science *in situ* often requires collaboration between the players of the 'NRM game'. Collaborative management of resources in the Sahtu region is for the most part dictated by the land claim and co-management bodies. Yet, cooperation is a fundamental aspect of Sahtugot'ine culture and its influence cannot be discounted in formal institutions (Rushforth 1984). The significance of collaboration in resource management in the Canadian North means an unpacking of the concept of co-management is necessary before the cases studies can be presented with respect to social cognition in practice. Before I do this however, I begin with an account of my place in resource management, the cases studied, and my research methodology.

In chapter two, "An Ethnographic Approach", I expand on the methodological details introduced in this chapter. This chapter traces my treatment and use of issues oriented ethnography and case studies, the two key methodological drivers of my research. I also discuss my social location within this research and in the lives of the people with whom I shared experiences outside of the research venture. These experiences I feel cannot be excluded from research grounded in ethnography. My research has a strong dialogical element; that is, how my interactions as a resident and working group member influence the stories that are told to me. I explore how ethnographic research is strongly shaped by daily interactions with community members, and in an applied approach, a personal commitment to people within a community and communities.

Chapter three, titled "The Changing Face of Co-management", explores the development of the concept of co-management from a static form of cooperation in state management to one that is adaptive yet with variable results in practice. I review the literature, particularly from a northern Aboriginal perspective, situating co-management as an institutional cornerstone of contemporary NRM in the Canadian North. As an institution that is derived from the land claim, it is suffused with power relations. With an eye to bricolage or adaptation I explore the idea of community based co-management in the two cases where local leadership increases its influence on the resource management relationship. The evolving nature of co-management is further explored in chapters four and five: watershed management planning and protection of cultural landscapes.

Chapter four, titled "Great Bear Lake Watershed Management" illustrates a historical-cultural shift in northern planning. I examine the issues behind planning and management of lands on a watershed scale before providing an historical (pre- and post-land claim) overview of Sahtugot'ine land use centered on the traditional use of GBL. I show how the GBLMP changed in its conception from a conventional land use planning process to a culturally and contextually driven plan. The plan was altered by the use of narrative, prophecies and oral histories to a principle based plan. This chapter describes how, in the process of planning, different perceptions, cultural values and systems of knowledge regarding GBL intersected among community, government and ENGO leaders.

Chapter five continues a case study focus by examining the development of two GBL peninsulas as a protected aboriginal cultural landscape called Sahoyúé-ʔehdacho. Titled "The Making of Aboriginal Cultural Landscapes", this chapter describes the recent evolution of cultural landscapes within national and international systems of protected areas. I show how a federal conservation agency, Parks Canada, has begun to modify its understanding of heritage to include Aboriginal culture and conservation with respect to landscape. However, I suggest that power relations play a significant role in planning even when actors fundamentally agree to the importance of aboriginal cultural landscapes. The cases of chapters four and five represent the context within which I explore shared understanding and its application in NRM institutions.

In chapter six, I take an interpretive approach to NRM by examining the shift in shared understanding that took place in planning among a diverse group of actors. Entitled "Practical Understanding", this chapter examines shared understanding from the sociological perspective of practice. Shared understanding interpreted in this dissertation is based on the habitus: the shared meanings internalized by individuals within a social group that in turn form individuals' dispositions and influence behaviours. Much of the chapter discusses how, in a context-situated planning process, cultural practices can alter the management of natural resources. I discuss the previously unwritten Sahtugot'ine story of the water heart, the significance of prophecy stories, and inter-cultural influences of language. These examples suggest that an alternative planning culture can be developed which is modified or adapted to social situations. Chapter six focuses on the influence of aboriginal culture in contemporary land use planning. Power relations in cooperative management planning are not ignored in the process and yet they are not static. Rather, power, arising from actor's strategies in the planning, fluctuates and with unpredictable effects. This chapter in effect proposes culture is powerful but insufficient to explain contemporary NRM practice.

Some very recent and important themes in northern resource management revolve around the concepts of adaptation and resilience within social-ecological complexes. Chapter seven, "Institutional Bricolage in Natural Resource Management", follows from the previous chapter in discussing how institutions such as co-management can evolve in a culturally appropriate manner. I examine how practical understanding in practice operates within the highly structured confines of planning. The connection between shared understanding and power relations exists within institutional arrangements from existing norms, practices and relationships. An adaptive planning process allows for examination of the complexities of NRM, especially the fit between co-management and people's lives and the social practices in which they are embedded.

Finally, chapter eight - the conclusion - titled "Natural Resource Management Rethought", returns to the concept of co-management as a new NRM institution but in a more critical light. Natural resource co-management illustrates a means for community members and outside resource managers to exchange and apply NRM understandings. Taking co-management to be adaptive however requires acceptance of the potential for unpredictable outcomes arising from strategic actions.

Following chapter eight, appendices provide greater detail and context for chapters in the dissertation. Appendix A provides a summary of historical events at Great

Bear Lake giving greater social and political context to the dissertation as a whole. Appendix B highlights the research-related meetings and workshops I participated in during the course of this research. Appendix C provides details on the research interview guide. Appendices D to F contain evidence of community support and research ethics approval for my research. Appendix G contributes to chapter two's epistemological discussion of co-management by presenting typologies of western science compared to traditional knowledge. Appendices H and I provide greater historical detail about the two cases, the GBLMP and the process for formal protection of Sahoyúé-ʔehdacho. In Appendices J and K, the principles for the management of GBLMP and elements of commemorative integrity for Sahoyúé-ʔehdacho are reproduced from their sources as they provide some insight into how members of the working groups perceived resource management.

Chapter Two:
An Ethnographic Approach

INTRODUCTION

An ethnographic approach to research is not for the faint of heart.[21] What makes it stressful and exciting at the same time is likely found in its inherent nature. Thrust into an unknown social and cultural world, not only was I to explore my research question; I had to do so with some degree of social proficiency and cultural sensitivity. As a result, my social location or habitus is as important to the research as is my chosen methodology and mode of analysis. A researcher's acceptance and rapport with the community can make an immense difference in the quality of data collected. Qualitative research, in particular one informed by ethnography, is well suited to addressing these issues. Ethnography, as methodology, is highlighted by situated engagement, thick description, and intimate access to people and culture, and their values, attitudes and beliefs, which provides a rich exploration into social behaviour. My research is not an ethnography in the classic sense. I consider it to be ethnographically-informed while sociologically pointed. The value of an ethnographic approach to my research was indirectly made clear in a funeral eulogy given by a Sahtugot'ine man in reference to the successful acceptance of a non-aboriginal Délı̨ne resident: "spending time on the land getting to know it, means getting to know the Sahtugot'ine".[22] This relationship between land and people, or environment and culture, points to the idea of practice. Getting to know people and understanding the "how" in what they do – their practice – is exactly why I use chose to take an ethnographic approach to my question of practical understanding in NRM. Situating myself so close to the case studies while engaging in community life provided me with an opportunity to understand NRM from the perspective of people's social and cultural practices.

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[21] I'm careful to avoid using the term "ethnography" to describe my research methodology. There is much that anthropological and sociological ethnographies have revealed through their intensive, descriptive studies of different cultures. Instead I prefer to use the terms ethnographic-based or –informed as I use the main tools of ethnography but within the realm of a predetermined issue and cases.
[22] Field notes. Délı̨ne, February 10, 2006.

This chapter takes a binocular view of the methods used and my social location in this ethnographic based research. I begin with an exploration of my own experiences gaining entry to the community as well as the social process behind examining the case studies with which I explore my research questions. Continuing from this, I present the methodological tools and data analysis used in the research.

I first visited the community of Délįne in August of 2002. It was at the end of a summer spent working on a research project based out of Inuvik examining alternative uses of driftwood on the Mackenzie River by local communities. The result of a detour, on the way back to university, was the beginning my special and relatively long relationship - especially so for a PhD student - with the people of Délįne.[23] The selection of Délįne as my field research site was not consciously selected but rather the product of a lengthy indirect process to locate an appropriate situation where NRM institutional formation was taking place. The communities of the Mackenzie Valley are all in various stages of institutional and socio-cultural change in which their traditional role in land management is being overshadowed by expectations of a massive gas pipeline, rapidly expanding resource development interests from outside proponents, and local pressure to complete co-management governance structures. For me, this part of northern Canada was the epicentre for studying social change in NRM.

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[23] When I moved to Délįne I had yet to complete my PhD candidacy let alone my required pre-candidacy Specialization Examination. In fact, I was still completing doctoral course work.

This dissertation is the result of my research and active ethnographic participation in watershed management planning and conservation of aboriginal cultural landscapes relating to Great Bear Lake (GBL). My first inter-personal interaction with the community came in February of 2003 when I participated in a week-long workshop to develop the Délı̨ne Knowledge Centre, a grassroots traditional knowledge-western science program. In June 2003 my wife and I moved to Délı̨ne for the duration of my research, fieldwork that lasted until May 2006. However, because of doctoral program requirements and other academic projects, I often traveled back and forth between university and community with lengthy periods away from Délı̨ne. My research while a "local outsider"[24] consists of data collected from participating in nearly 70 meetings relating to the two case studies, 27 semi-structured interviews with all key participants, participant observation field notes, and primary, secondary and tertiary documents collected as a member of the GBLMP and Sahoyúé-ʔehdacho working groups from 2003 to 2006.[25] I returned to Délı̨ne in 2007 and 2008 to participate in Sahoyúé-ʔehdacho and land use planning community meetings, follow up on questions from interviews, and discuss findings. Although I continued to participate and contribute to the working groups after the completion of my field work, in both cases the projects had shifted in scale from a community focus to one of regional review and community-federal government negotiations.

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[24] Other terms such as 'researcher residents' and 'situated researcher' have been used to describe people who are not from the community but reside there over long periods of time for their research.

[25] Appendix B consists of a list of the meetings and events I attended during my field work illustrating the formal level of my participation.

A CASE STUDY METHOD

In social inquiry up to the last decade of the 20th Century, case studies received little academic attention and were overlooked to some degree in favour of other methodological tools following the natural science model (Sjoberg et al. 1991, Stoecker 1991, Yin 2003). Qualitative methods, such as participant observation, non-participant observation, and interviews, in contrast to quantitative methods, are often used in case studies and attempt to understand social action in depth and with contextual richness. As such, qualitative research seeks to document such actions through a complex yet nuanced set of interpretive categories. The case study is an empirical inquiry that explores a phenomenon within a real-life context, especially when the boundaries between phenomenon and context are not clearly evident. Case studies can be intrinsic or instrumental (Stake 1995). The intrinsic case study provides an open opportunity to learn about that case without having an initial research question. The instrumental case study, in contrast, provides insight into a particular pre-identified issue. The two instrumental case studies that I follow, the formal protection of the aboriginal cultural landscape of Sahoyúé-?ehdacho and the Great Bear Lake Management Plan, represent the bounded locations for my investigation.

The advantage of using case studies is that researchers can explore the "reality behind appearances, with contradictions and the dialectical nature of social life, as well as with a whole that is more than the sum of its parts" (Sjoberg et al. 1991:39). In other words, the case study allows an interrogation of practice through the intersection of human agents with organizational structures which are relatively autonomous yet still a product of this interrelationship. Although cases can be studied in a number of ways using a variety of methods, an effective way to explore the interactions between people in the NRM field is in relation to ethnographic data of their particular practices within the bounds of those cases (Mahar et al. 1990).

THE ROAD INTO DÉLĮNE

> *I wasn't quite sure what I was going to say. I had arrived in Délįne from Inuvik, without any formal notice, only the day before this meeting. Now here I was sitting outside the Délįne First Nation "band council" meeting waiting to speak to the Chief and Council. Getting on the agenda of this meeting was perhaps one of the most critical moments of my preliminary field-work as it would determine whether or not I had formal support for working with the community. The problem was that I didn't have a proposal, funded project, or specific idea of what I might research. In the meeting I explained who I was, my background, and of my interest and ideas about NRM research. From my experience I knew that personal details are important in northern communities so I explained I was originally from Hay River in the North and had recently worked with the GNWT as a forester. I had even previously worked with some Délįne leaders. After I expressed interest in ethnographic research that would cover at least one full cycle of seasons, I was asked my first question. Expecting to be asked a resource management question, Pauline simply asked "who paid for you to come here?" It never dawned on me that my lack of funding would benefit me; I admitted that I paid for the expensive flight out of my own pocket. The biggest concern for Sahtugot'ine leaders was that people who worked with them demonstrated a willingness to learn and interest in them as people, not objects. The resulting level of trust from my initiative and interest in working with the community began to pay dividends toward our research-community relationship. This incident never left my mind during my research over the next three years.*[26]

Of course the decision to work in Délįne was not based entirely on luck. Reciprocal needs were met in that I was allowed access into many aspects of community life and community leadership for my research by virtue of living in Délįne and actively participating in community life. In return I contributed to the community in a number of ways while living there as a situated researcher. Like others faced with conducting research in local contexts, I felt that it was vital to get involved in the community along the way (Bryman 2004, Brody 1982). Failure to participate might indicate a lack of commitment and loss of credibility in such a small and tight-knit community. When the ice-road opened in January I drove up Edmonton with my own truck and trailer with snowmobile, sleigh, and chainsaw to Délįne. Driving an average of 20km per hour on a treacherous ice road in the ever-present winter darkness with a loaded down trailer of gear seems risky in retrospect but nonetheless ended up making all the difference to my research.[27] Apart from the obvious practical benefits of getting my 'stuff' to Délįne, I think it also demonstrated my willingness to be a part of the community, showed my ability to take care of myself, and also confirmed my commitment to situated research. My 'ton of bush gear' was essential for wood cutting trips to heat each of the many houses we lived in while in Délįne. I also brought along winter and summer camp gear for participating in hunting trips, checking trap lines when invited, ice-fishing and checking of fish nets, inter-community trips, and frequent trips 'to the bush'. I knew that living in such a traditional community, participation in daily activities using the body (Goulet 1998) would greatly increase meeting people, knowledge sharing, and most importantly, being accepted in the community. Traditional activities may be central to Délįne but like any other community, many other activities were ongoing as well. My interest in youth sports led me to coach the 8-12 year old youth Délįne Little Chiefs hockey team and organize and run an all-ages Saturday night "shinny hockey" group at the arena. This, combined with playing on the Délįne Men's hockey team, meant that I was seen as participating in community life in a number of ways and not as a researcher who narrowly focuses on research at the cost of understanding real social practice.[28] In this sense, the connection between my research cases, my involvement in community activities, and participation in traditional practices was opaque but strongly interconnected.

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[26] Field notes.

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[27] In this sense the risk was not only physical and financial, but also methodological in that I was not sure exactly how all this effort would contribute to my research.

MY SOCIAL LOCATION

My interest in the emerging nature of NRM began in social forestry. As a NWT government forester, I was expected to participate in, develop, and lead forest extension programs where the management of natural resources was seen by nearly everyone as simply technical with respects to ecology and science. I found that technocratic solutions often occupied the top tray of resource managers' toolkits. The socio-cultural and political dimensions of NRM seemed to be played on entirely different playing fields and with different arguments and tools. Rather than explore alternative means of finding solutions to problems, limited time and resource commitment by agencies and resource managers meant that courses of action were typically based on existing programs regardless of level of success. Even in the Canadian North, where inter-personal relationships are implied to be of greater value in NRM activities than in the southern provinces, opportunities for exploring new avenues for NRM innovation are often surprisingly limited.

Not surprisingly, my social location contributed greatly to my research approach. As social position(s) in multiple structures cutting across culture, class, time, space and history (Vaughan 2002), the social location of the researcher is as equally important as that of the researched in the research enterprise. As indicated by the above description of my entry to the field, my habitus (set of dispositions developed as a response to social locations in life), is relevant to my position in the research field and in particular to how I conducted myself in carrying out my research. For many of the people that I worked with in Délı̨ne, our lives contrasted in various ways. For example, unlike most people in the community, I studied at a doctoral level, I had worked for government and industry in the provinces and territories, I had traveled extensively, and I was being fully funded with travel funds with which to easily move back and forth between university and community. As a male researcher I was placed in a certain position from which I consciously and likely unconsciously took advantage. Living in such a male-dominated culture (with regards to the land and resources) meant that I was privy to and often invited into the physical space where Délı̨ne men's discussions about the land took place. Moreover, I naturally gravitated to these groups through my northern-based interest in fishing, hunting and boating/snowmobiling.

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[28] Whereas the Délį̨ne Cultural Centre and Land Corporation were official meeting places in Délį̨ne, the arena and attached community hall was he place where more regular social gatherings took place. The official sport in Délį̨ne is hockey although it is joked that the true recreational activity of choice is bingo, which always seemed to take place when a hockey game was in progress. The effect was to create the one place where so many different people would gather and socialize.

I was able to bring my past natural science education, NRM experience within government, as well as my 'northerner' tag into the research project. Having previously lived in the NWT as a youth as well as later working for the GNWT as an extension forester, my personal history, experience and perhaps more importantly, my understanding of the social and political environment, helped me to create linkages with leaders and quickly adapt to ongoing community-government NRM programs with respect to fisheries, forestry, and wildlife issues. This level of participation has helped to overcome what Bryman (2004) and Van Maanan and Kolb (1985) see as one of the most difficult steps in ethnographic research – that of gaining access to a social setting that may be closed to outsiders and geographically and culturally difficult to access. My participation in Délįne resource management and general community development projects contributed to the formal and informal sponsorship of my research project (Bryman 2004). Not only was I given formal approval by Chief and Council and sponsorship by Land Corporation leaders, I was also given verbal approval from elders and local people who recognized my "preliminary field-work" (Caine et al. Forthcoming) prior to undertaking the research. On the one hand, living in Délįne likely contributed to my presentation of resource management as tinged with Sahtugot'ine interests and values. On the other hand though, my professional connection to and interest in government-community relations eased what could have been perceived as a tenuous relationship with government agency representatives especially since I lived and carried out my research from Délįne.[29] All government and ENGO representatives that I worked with recognized that my research project was better facilitated by living in the community.

While I initially thought the opportunities for my research in Délįne were numerous due to its geographic remoteness and relatively recent signing of the land claim from which new ideas were being tested, I found that this was not the case at all. Instead I found that the community to be very progressive in a multitude of ways, politically astute, and with a strong vision of their future. I therefore learned to slow down the pace of my research program, take a more relational tack and, used a participatory action research philosophy to find out where I fit into the community's interests and needs rather than the other way around.

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[29] Still, in one meeting I was referred to by a government official as Délįne's "advisor" and in traveling with community leaders to planning meetings or political lobbying meetings, I was officially recognized as their "resource advisor". There is often no way out of this ethnographic paradox.

Although I was aware of male dominated gender structures in aboriginal communities in the NWT, I had mistakenly assumed that Délįne's progressiveness applied to all aspects of the community. Délįne is one of the few remaining aboriginal communities in the Canadian North where political and economic development leadership is strictly male dominated. Women in Délįne tend to attain informal leadership roles in positions with less cultural 'glamour' or lead community social programming. Women were culturally excluded from practicing cultural activities such as Dene Hand Games and Dene Drumming, from being subsistence hunters and fishers, and from taking key political leadership positions such as First Nation Chief.[30, 31] An alternative approach might include a study of the (changing) role of women in resource management, but in this research project the intent is to focus on current practices relative to the development of new resource management formal institutions. Working within such gender imbalances was difficult to reconcile. I accepted the situation and strove to incorporate women elder's input when it was provided, which was typically given albeit after key male elders spoke first. The reality of my research situation was that men typically took on the formal leadership roles related to natural resources.

Perhaps being overly influenced by older ethnographic writing where adaptability and flexibility was ubiquitous but described in traditional land use contexts, I was unprepared for the level of Sahtugot'ine adaptability to new knowledges. In just three

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[30] It is important to note that women are active in other culturally functional and important ways while male dominated activities are taking place.

[31] The political leadership of Délįne underwent rapid changes while I was there. For example, a female councilor was named Délįne sub-Chief and later informally suggested that she might run as Chief in the next election. For the most part however, all economically influential organizations in Délįne were led by men.

years of living in Délı̨ne I found that people were completely fearless when it came to traveling ever further from their community, experiencing new cultures, and thinking about and adapting technologies to local conditions and use. Where I assumed that I would examine changes between traditional and contemporary practices, with a focus on traditional practices, I found that it was contemporary practices that were of interest. As a result I was more likely to find myself trying to keep up with Délı̨ne people navigating through contemporary complexities and challenges that were quite unrelated to NRM but indicative of the abilities required in complex NRM. In the end, the only way to overcome my preconceived notions and assumptions was to integrate as much as possible into the life of the community without losing track of my research objectives.

AN ETHNOGRAPHIC-BASED METHODOLOGY

An ethnographic approach to research unearths implicit meanings and tacit understandings as well as revealing patterns of behaviour. "Living one's way into a culture" (Wolcott 1999:43), ethnographic-based research is used to document and illuminate a culturally embedded social system rather than representing a culture in its entirety (McCall 2006). It is an ongoing process to place encounters, events, and diverse understandings into a more meaningful context (Tedlock 2003). Generally speaking, ethnographic research combines field work and various methods of inquiry to produce historically, politically, and personally situated accounts and interpretations of human lives. In my research, the social and political context primarily revolves around Délı̨ne and Great Bear Lake, but also includes the meeting rooms and places in various locations outside of Délı̨ne where people interacted to discuss watershed NRM issues. My field site is at once traditional and contemporary.

To be sure, this is not ethnography in the classical sense of studying human culture and social behaviour in an attempt to re-create an insider or cultural emic perspective. As Agar (2006) points out, a vision of 'real ethnography' is becoming increasingly blurred from a number of disciplinary and epistemological perspectives, yet the fundamental concern with meaning and context remains. Conventional ethnographies includes history of the group being studied, geography of the location, kinship patterns, symbols, politics, economic systems, educational or socialization systems, and the degree of contact between the target culture and mainstream culture (Fetterman 1998). My fieldwork approach draws from ethnography in that it recognizes and accepts the existence of multiple realities in order to understand why different people think and act the way they do within the institutional setting of NRM, and more specifically within co-management. Sociologically, this research is influenced by institutional ethnography in that it examines how individual actors fit within a larger framework of institutional practices.[32] I explore the locations of ruling relations and how power is practiced and implemented to shape human activities in organizational settings (Marvasti 2004). In other words, I examine the experience of individuals whose everyday activities are in some way "hooked up into, shaped by, and constituent of institutional relations under exploration" (Devault and McCoy 2001:753).

My approach to ethnographic research in Délı̨ne was proactive yet cautious. Although I lived in Délı̨ne prior to beginning the research, the lead-up time to the actual research took nearly five months. This was partially due to my concern for a culturally appropriate method, but also because it took time to develop enough rapport with community leaders to gain their trust and be asked to participate in the two cases studies.[33] From my experience in working with northern communities, I knew that observation and analysis from afar often led to conclusions and decisions that did not fully take into account the context, multiple understandings and diverse micro-strategies of individuals and communities. It was for this reason that I felt an active ethnographic approach (Bryman 2004) was best able to examine shared understanding and application of alternative resource management practices. My research is not participatory, action or community-based in the sense that I was helping people to develop and undertake a project arising from their concerns. I quickly discovered that Délįne leaders understood very well what their community resource management objectives were and, for the most part, how to go about addressing them. Instead, as a situated-action approach, sociological understanding can occur by taking into account individual activity, choices, and actions occurring at the local level (Vaughan 2002). My role was to assist where possible using my particular skill-set, and at the same time be able to explore an issue that would have general relevance to community leadership and possibly greater application to organizations working at the community level.

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[32] Devault and McCoy (2001) describe institutional ethnography as "the empirical investigation of linkages among local settings of everyday life, organizations, and translocal processes of administration" (P. 751).

Residing in Délįne, my research site, I found that I could not ignore the many formal NRM activities that were surprisingly underway in the community. It seemed that, in addition to the many meetings associated with GBLMP and Sahoyúé-ʔehdacho, there were daily notices posted at the Northern and Co-op stores and personal invitations to meetings, elders' gatherings, or open houses that were organized by Délįne groups, visiting industry representatives, government organizations or regional co-management boards. The meeting topic/organizer combinations seemed endless. I found that I had to not only remain informed of these events but also make decisions as to whether or not they were relevant to my research. Ethnographically speaking, they all were potentially relevant, as all activities undertaken by community members were either directly or indirectly related to the land and resources. A panoramic description of Délįne illustrates the relationship between community members and natural resources. As you fly into Délįne one immediately notices how the hamlet is laid out facing Great Bear Lake. Every house has easy access to the lakeshore, and "warehouses" or storage sheds line the shore like a miniature town site itself. People's yards frequently have large teepees for smoke-houses next to outdoor cookhouses strategically facing the lake. Proximity to the lake allows people to constantly monitor changing summer time lake conditions from north winds, winter snow conditions on the ice, and springtime ice movement during break-up. Socially, people can observe who is on the lake; for example, who is the first one out in a boat after the ice leaves in the spring or who has left their snowmobile on the spring-time ice the latest. In the centre of town, Délįne government buildings have been built and are being designed in natural shapes; for example in the outline of birds soaring over the land. One of these buildings, the Délįne Land Corporation, with two wings of offices, has a boardroom that is essentially a very modern window-surrounded and glass-roofed teepee open to the sky that, from the air, represents the beak of an eagle in flight. These physical elements serve to remind people that the land and natural resources are at the spiritual heart of Sahtugot'ine culture.

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[33] Some 'lead-in' activities that I undertook included: working with a DKC community-researcher to map the Délįne cemetery for use in community education and planning projects, and helping classify the Délįne Uranium Team (DUT) library at the Band Office. These and other activities helped to introduce me to people, their organizations, and the general structure of the community.

Ethnographic Research and Theory

Ethnography has a long and storied history but has "long since slipped out from under the anthropological tent" (Wolcott 1998:42). Sociologists, among others, have undertaken traditional ethnographies albeit more often urban focused, as exemplified by the Chicago School of sociology. In North American rural and resource sociological research, ethnographic based research is infrequently used and has yet to gain the status and application of other qualitative methodologies.[34] Anthropological ethnographies such as Osgood's classic description of Bear Lake Indians (1932) and Rushforth's (1977) research on Bear Lake task group formation is valuable in its relevance to traditional underpinnings of Great Bear Lake contemporary management issues. What is required now is an applied and critical ethnographic approach to examining rapidly changing NRM institutions.

Thomas (1993) observes that conventional ethnography describes "what it is", whereas critical ethnography asks "what could be". Critical ethnography refers to the reflective process of choosing between conceptual alternatives and making value-laden judgments of meaning to challenge research, policy and other forms of human activity (Thomas 1993:4). I consider my research to be a hybrid between critical and applied ethnographic approaches within an institutional framework. Applied, in the sense that this NRM research is issues-oriented involving a variety of experiences and introducing a diversity of voice into the pool of officially sanctioned knowledge (Agar 2005) in the management of natural resources. The research is also critical, in not only addressing understanding (the hermeneutic) but also integral toward creating positive social change

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[34] Rural and resource sociological ethnographies in the Americas have been, for the most part, focused on fisheries, agriculture, and forestry. Little, if any, rural sociological ethnographic research on contemporary NRM has been undertaken in the Canadian North.

(the emancipatory) within the realm of social problems (LeCompte and Shensul 1999, Thomas 1993). Along with a hermeneutic perspective, this research also explores the systems of power that hold this context and meaning in place. The result being that "once you throw this switch, once you add power to the ethnographic circuits, you light up the so called critical landscape" (Agar 2005:316).

The relationship between critical ethnography and critical theory is rarely fully explained. This relationship is however, connected through the defamiliarization process within participant observation (Morrow 1994). Defamiliarization is a process of distancing oneself from the taken-for-granted in order to take a critical view of the situation. Thomas tells that "we take the collection of observations, anecdotes, impression, documents, and other symbolic representations of the culture we studied that seem depressingly mundane and common, and we reframe them into something new" (1993:43, see also Agar 2008). The essence of contemporary critical theory is an interest in the emancipatory potential of social change. Social change requires the location of different actors within cultural and structural contexts while attending to relations of power and control (Morrow 1994, Bourdieu 1990). In recent years the practice theory of Pierre Bourdieu is increasingly being applied in North American sociology (Sallaz and Zavisca 2007). Bourdieu's practice theory was developed explicitly from his ethnographic fieldwork and his concepts applicable to empirical research. Bourdieu's theory of social practice is guided by the key concepts of capital, field, habitus, and symbolic power. I examine practice theory in greater detail in subsequent chapters within the context of the two case studies. But to put it briefly, Bourdieu's explication of practice is a mode of practical engagement with the world. External social structures are instilled in an individual's cognitive/mental and corporeal/bodily structures, which in turn creatively act on the world through strategies (a feel for the game) to reproduce or, under certain conditions, change external social structures. Practice theory explains the struggle for power through the subtleties of meaning, the strategic use of resources, the influence of history or past experience on habitus, and practical experiences in the context of social change. As already described, ethnography explores the multiplicity of meanings and habits in practice, the "stuff of culture" (Van Maanan 1988:13). I see great value in incorporating a diffuse or weak version of Bourdieu's practice theory (Luntley 1992) into ethnography in order to examine the practical implications of NRM understanding.[35]

Participant Observation

Ethnographic-based examination of people's interactions with their environment, the shared meaning that people ascribe to that relationship, and the power relations that allow or disallow its influence on other social structures and institutions, can be informed by participant observation supplemented by interviews (Kvale 1996, Fetterman 1998). The methodological heart of ethnographic fieldwork is participant observation.[36] The majority of my ethnographic research consisted of my active participation in the Great Bear Lake Management Plan Working Group (GBLWG) and Sahoyúé-ʔehdacho Working Group (SEWG).[37] I chose to become an active observer yet full member of the working groups in order to better interrogate my research questions. In taking on a working group member role I also assisted in the social change objectives of each working group while fulfilling my participatory desires (Fine 1994). Initially I played more of an observer role, but with increasing participation and role taking I became a full member, albeit without organizational responsibilities.[38] This level of involvement led to greater data depth as a result of access to meetings, documents and the development of increased trust in relationships with other working group members.

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[35] Luntley (1992), among others that I will discuss, sees more potential in endorsing a practice theory that has greater rational, reflexive, and critical adjustment as part of one's engagement with the social world than Bourdieu might be read to suggest.

[36] Key elements of participant observation include: living for an extended period of time in the field of study, learning and using local language and dialect, actively participating with local people in a wide range of daily routine activities, using everyday conversation as interview technique, informal observations during leisure activities, recording observations in field notes chronologically, and using both tacit and explicit information in analysis and writing (DeWalt and DeWalt 2002, Wolcott 1999, Fetterman 1998).

[37] Chapters Four and Five provide details of these two cases and working groups.

Methodological vigilance and reflexivity was crucial in this research project as becoming too involved and too accepted could serve to counteract the basic premise of ethnographic representation (Tedlock 2003).[39] That is, reflexivity required that I retain a veneer of the outsider's perceived stance, maintaining a certain amount of distance from the issues, while also empathizing and imagining multiple perspectives of those affected by the issues. My acceptance in both contexts – by local community from living in Délįne, and by government and ENGO participants through my past work experience and living in the North - meant that I was perceived less as an observer and more as a working group member. I believe however, that any loss of observational objectivity was balanced by the authenticity I gained from my increased access to the subjective interpretations within often-closed working group meetings. As an outside researcher, I was not culturally connected to the same Sahtugot'ine beliefs nor was I embedded in government bureaucratic practices and assumptions. As a resident researcher, I was afforded a degree of freedom with which to question nearly everything that might seem unquestionable to those within the community or involved in the cases (Simmel 1950).

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[38] However, on the frequently updated list of working group membership, I was listed as a member from "Délįne". Where I provided input on draft plans, I was formally listed as being associated with the "University of Alberta".

[39] Michael Agar, in observing an ethnographic crisis of representation, notes representing the raw material of ethnography to an audience who wasn't there, poses a number of problematics (2005). In an earlier text, *The Professional Stranger*, he noted that "ethnography is really quite an arrogant enterprise… [and]… at best, an ethnography can only be partial" (Agar 1980: 41).

Reflexivity was also a counterweight to methodological complacency and imprecision. Over three years I witnessed the arrival and departure of short-term researchers and temporary teachers. The positive and negative effects upon outsider and community were clearly evident and informed my own approach to living and working in Déline. It was partially for this reason that I chose to not live with a Déline family, as do so many ethnographers. The space and time required for reflexivity and the maintenance of an outsider veneer was ensured by my housing choices over the course of my stay in Déline.[40] The loss of ethnographic detail over time was counterbalanced by the rich and deeper forms of data garnered from increased trust and familiarity through residence and participation within Déline. For example, I was invited to Déline leadership meetings regarding diverse resource management issues; I was allowed to sit in on access and benefit agreement negotiations; and I was asked to travel with the SEWG to Fort Smith and Ottawa and contribute to senior level and political meetings. In return I was expected to participate in cultural community and family activities.

Integral to my fieldwork, I maintained field notes – primarily mental and jotted notes with the addition of full field notes at the day's end (Lofland and Lofland 1995). This approach was taken in order to remain as participatory as possible without being perceived as a non-participant or complete observer (Bryman 2004). Working group members likely thought I was a studious working group member, taking copious notes in meetings, when in fact I was trying to balance working group information with my personal field notes while remaining attentive to issues.

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[40] Anthropologist Joan Ryan (who trained Déline DUT field researchers) lamented the fact that the academic need for reflection time and space was the first methodological casualty of community research in the Canadian North (Ryan and Robinson 1990).

Throughout my residence in Délįne and participation in community events, I was asked by many people and community leaders to take photographs for people, chronicle cultural and sporting events, and prepare photos and stories for northern newspaper articles on a variety of non-NRM topics.[41] Thus, not only were photographs a "can opener", assisting with entry into communities by establishing familiarity with people (Fetterman 1998:65), they also supplemented my field and journal notes as *aides mémoires* (Bryman 2004). The photographs helped document field observations and provided a visual link between data in the manual data analysis process. These photos later proved invaluable when revisiting field notes and finding missing information; the photos triggered information and provided rich detail.

Living in Délįne for an extended period of time, I found it to be a blurry matrix of formal and informal resource management (and often unrelated) activities, all of which necessitated observation through active participation. I participated in hamlet and land based activities and, as best possible, tried to live within the rhythm of the community while navigating the ethical requirements of academic research. The result was a rich and rewarding experience with thick observation surfacing out of my Délįne residency and working group participation. However I was not solely observing other's participation as much as I was participating as a working group member while trying to examine others' as well as my own actions and the effects thereof. Soon after my initial trip to Délįne, I began volunteering with the community-based Délįne Knowledge Centre (DKC) Action

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[41] As a strong advocate of volunteerism and service, I began to take on a three-way social personality. I was the researcher with the SEWG and GBLWG; I was the youth hockey coach often liaising with teachers and parents, and I was a resident who chose to live in Délįne amidst daily community issues.

Group, a grassroots multi-knowledge centre for scientific and cultural research and exchange. As a graduate student I was able to leverage my academic capital in furthering the university-community formal ties that community members and university researchers were interested.[42] Two months after moving to Délı̨ne I was asked by a Délı̨ne leader and Sahoyúé-ʔehdacho community coordinator, to research and write a public participation and decision-making strategy for the SEWG (Caine 2004). As an in-kind contribution to the community, it was another can-opener to my participation in the SEWG and community support for my research.[43] At the same time I was directed by the Délı̨ne Knowledge Centre (DKC) Action Group to participate and represent them in GBLMP meetings. I consider this explanation of my social location and participation in community development activities outside of research to have greatly contributed to the success of my working group involvement in these two cases. It was only after participating as a working group member that it became clear as to how these two cases might provide the context that I was interested in researching: shared understanding of NRM and community based resource management within a structured and political setting.

Ethnographic based inquiry typically relies on the researcher seeing things as strange and new in order to observe patterns of behaviour. Over the course of time spent living in Délı̨ne, much of the strangeness admittedly wore off and was replaced by a sense of the commonplace. In order to counteract this effect, I used additional qualitative methods including interviews with key leaders.

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[42] For example, I organized the first Délı̨ne-ACADRE Network meetings at the University of Alberta in Edmonton which led to a SSHRC/CURA grant proposal as well as related research projects.

[43] This created an ethical dilemma for me. Based on my work as lead writer of a similar paper (DKC Action Group 2003), it was expected that for this larger undertaking I would accept standard consultant rates of pay. While justifying my in-kind approach to the project as conflicting with my SSHRC and Trudeau Foundation research funding, the real reason was to deflect any possible criticisms of my living in the community and benefiting financially for it. At the same time I felt this was one means of making a contribution to the community.

Interviews

Interviews can greatly enhance ethnographic and case study analysis (Kvale 1996, Fetterman 1998, Bryman 2004). I used in-depth but semi-structured interviews in order to provide an additional layer of detail to observations and also to act as a defense against fading ethnographic strangeness. Combining interviews with participant observation provides a deep interpretive exploration based on the simple premise that if you want to know how people understand their world and their life, you need to talk with them (Kvale 1996, Bourdieu [1993]1999). Face to face semi-structured interviews, primarily in the form of conversation with embedded and often re-worded questions (Fetterman 1998), were conducted with all members of the GBL and Sahoyúé-ʔehdacho Working Groups.[44] As noted earlier, 27 semi-structured interviews were conducted in total with some individual's interviews covering both working groups due to dual membership.[45] The membership of the working groups consisted of Sahtugot'ine Elders, political leaders and resource/conservation managers from Dél̨ine; territorial and federal government project managers and scientists; co-management board members, government department directors and policy leaders; regional wildlife managers; representatives from ENGOs; and current and past facilitators of the working groups. From a network analysis perspective, most, if not all, of the working group members were generally familiar with one another, with many outside people already working together on projects in other northern communities.

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[44] In two cases, interviews were conducted by telephone.

[45] See Appendix C for the interview guide that directed all interviews.

Interviews ranged from one to three hours with some requiring follow-up with face-to-face conversations, telephone calls, and email correspondence. While it is quite common for researchers to provide some from of remuneration for interviews in recognition of time given up and knowledge shared, I did not offer nor was I asked for any interview payment.[46] During my research I witnessed escalating rates of pay or 'honorariums' for community member participation in NRM projects. For example, consultants contracted by oil and gas companies to undertake traditional knowledge studies sometimes provided up to $500 per day for interviews, grossly inflating expectations for participation payment as well as creating challenges for academic researchers with small budgets working in the community. This development was of concern to my research design and I was not sure what its influence might be on my research until the time I interviewed working group members. However, as previously described, the design of my research included in-kind and personal contributions to the community over the course of my residence in Délı̨ne. While I hoped for cooperation to be reciprocated, in such a changing social landscape the end result was uncertain. Fortunately, the issue of interview payment was a non-issue and all members of the working group were pleased to be interviewed. My multi-level involvement with the community, and active membership and in-kind work with the working groups, was accepted as social payment to the community in lieu of individual interview payment.

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[46] For the three Elders, I provided $50 out of respect for their time even though they did not ask for any payment. Through my day to day involvement around the community, I realized that these elders spent a great deal of personal time and effort on these two cases often without any compensation.

Interviews were digitally audio-recorded and then later transcribed verbatim.[47] All but three were conducted in English. English language transcripts were carefully reviewed against the recorded interviews for accuracy. Three interviews with Sahtugot'ine Elders (all of whom had dual working group membership) were conducted in the North Slavey language with help from local interpreters and then translated and transcribed into English.[48] These three interviews were more open-ended than the other interviews to reflect and accommodate stark cultural and language differences.

Documents and Archival Information

Documentation, working group emails, and archived information are key forms of evidence that were drawn upon for this research. These documents were used to support the interviews and fieldwork, and filled in areas of unclear or missing historical record.

A word on the use of emails as data is needed here. Because my research involved multi-organizational leadership, the technical proficiency of working group members was high. The advanced use of computer and digital technology reduced the amount of paper required in working group communications, technical writing, and mapping (except when required at community events). This meant that email communication among facilitators, community leaders and outside representatives was frequent and often contained a great deal of information, in both document attachments and in body text. Therefore, not only did I have to analyse multiple versions of management plans, resource assessments, and agreements in email attachments, I had to monitor the content, tone, and direction of the emails' body text. As a general indication of the amount of correspondence that took place in these cases studies, my electronic raw data consists of approximately 250 Microsoft Word, PDF, and JPG documents from 360 emails for the SEWG, and 150 MS Word, PDF, and JPEG documents from 140 emails for the GBLWG.

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[47] Agreement for recording interviews was secured from Délįne members as part of each individual's informed consent process. In an early agreement with the Délįne First Nation Chief, copies of Délįne members' transcripts were provided to the First Nation for community planning. The intent was to follow Délįne's developing community research policy.

[48] Each working group's membership includes Sahtugot'ine Elders who felt more comfortable being interviewed in their Dene language than in English.

A great deal of information in the form of communications, reports and draft plans were developed prior to my arrival in Délı̨ne, as both cases have a relatively long history. As well, northern and national newspaper accounts, related consultant reports, trade magazines, and community profiles and grey literature were manually analyzed for emergent issues related to the research. On the one hand, residing in Délı̨ne meant that secondary and tertiary data were more readily available and easily collected than if I were to have traveled to Délı̨ne for short periods of time to collect data. On the other hand, the availability and frequency of primary and secondary documents that were produced in the two cases taxed my ability to iteratively analyze the data, given my other field activities.

DATA ANALYSIS

After leaving the field in May 2006, I revisited all data by undertaking multiple readings thinking about the relevance of documents. This process also helped to me to identify gaps in my data. Because there was a substantial amount of pre-existing hard copy data, I printed out key electronic documents and emails after the preliminary round of manual analysis/sorting in order to bring these data into one standard and cohesive format. The documents were combined and then arranged chronologically in two sets of binders, one for each case study, in preparation for the main round of coding. The two cases were structurally complicated with sub-processes and political events taking place outside the community as well as overlap between people, cases and partnering organizations. I therefore created a three foot by ten foot long wall chart chronicling the incidence of key events. The wall chart helped me to maintain chronological structure, visually highlight significant periods in the case studies, and perhaps most importantly, think about relationships and patterns in my research.

During multiple passes of coding through my field notes, I alternated with the two sets of case study binders and the chronologically arranged data. At this point I was coding three sets of data simoultaneously. Manual coding of the bindered documents and field notes was the first stage of analysis with successive rounds to narrow down themes. Because of the hundreds of pages of interview text already in a standardized MS Word document format, I utilized NVivo7™, computer assisted qualitative data analysis software. Keeping the data in mind while moving back and forth between my previously manually coded data, I undertook initial free coding of the 27 interviews. Nodes were subsequently examined and re-coded for linkages, and higher order categories with sub-categories (trees) were created. Through an iterative process of comparing and contrasting between data sets, emergent themes were then developed into key categories as concepts (Miles and Huberman 1994).

ETHICS

My research project entailed working closely with people over long periods of time. Ethnography and participant observation based in a small northern community required extensive relationship-building prior to the initiation of the actual research. In this type of setting, ethics are of paramount concern. I met with Délı̨ne's Chief and Council in 2002 to address community level ethics prior to academic and institutional research ethical processes. On August 29th 2002, I was given formal support for my research through a

Délı̨ne Dene Band Council Motion. Appendix D contains the Délı̨ne First Nation's letters of support during my research. During my research I continued to meet with leaders from the Délı̨ne Renewable Resource Council, Délı̨ne Land Corporation, and Délı̨ne Charter Community to keep them up to date on my research progress.

Changing political leadership can influence academic research in a community for a variety of reasons. I was aware of the potential for negative effects if new leaders were not kept informed of my research progress. I therefore again received Chief and Council formal support during my research update presentation at a May 19, 2005 council meeting, immediately after a Délı̨ne election.[49] I also developed the interview guide for my research after meeting with Chief Walter Bayha in 2005. In April 2007, during a return visit to Délı̨ne to participate in a SEWG community review, I presented preliminary findings and at the same time provided copies of the consented interviews and research design materials to the Délı̨ne First Nation. These data are securely stored in the Band Manager's office, with the intent that the data and final reports would ultimately be stored at the Délı̨ne Knowledge Centre. The final dissertation was discussed in Délı̨ne with available community leaders and members in August, 2008.

The Association of Canadian Universities for Northern Studies (ACUNS) established *Ethical Principles for the Conduct of Research in the North*. I adhered to the principles of community consultation and participation, building mutual respect, providing accountability and ensuring informed consent during my research. A formal Northwest Territories Research Licence, through the Aurora Research Institute in Inuvik, is required for any research which takes place in the Northwest Territories (ARI 2004). As part of this process, community consultation and approval was provided by the Délįne Renewable Resource Council and a licence was issued for my research (Appendix E). At the same time, University of Alberta research ethics approval was issued by the Faculty of Home Economics, Agriculture, and Forestry Research Ethics Board (University of Alberta 2004) (Appendix F).

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[49] A Délı̨ne First Nation election was held in 2005. This meeting was the first meeting of the new Chief and Council's term and thus afforded an opportunity to not only update those who know of my research but also explain my work to new councilors. Over the course of my research I worked with three different Délı̨ne First Nation Chiefs and councilors (Chief Raymond Tutcho, Chief Walter Bayha, and Chief Charlie Neyelle).

CONCLUSION

The above description of my ethnographic-based research reflects what Denzin and Lincoln (2005) refer to as the fourth moment of qualitative research: the crisis of representation and how truth in research method requires continual examination. An ethnographic-informed examination of practical understanding in NRM provides a means, albeit only partial, of expanding our awareness of the significance of context and culture in management practices. In this chapter I described not only the methods used in my research, but also methodological and ethical implications. This included my active role in the research as well as the potential influence I had on the research. I situated myself in the research through my social location and habitus as an integral feature of the research enterprise and landscape. Attending to multiple contextual and methodological dimensions in ethnographic research provides a rich and multifaceted description and explanation of the issue being explored.

Chapter Three:
The Changing Face of Co-Management

INTRODUCTION

Perhaps more than anywhere else in Canada, the North illustrates how landscapes can change in so many ways. Landscape alterations are not simply biophysical resulting from decades of social, economic and political decision-making. Rather, the social, economic, and political landscape is also altered as resource management decisions are made by multiple actors operating at multiple scales. Co-management, a form of shared governance over lands and resource decision-making distinctive to the Canadian North, is one example of governance contributing to recursively altered landscapes. The development of co-management institutions results from the recognition that past federal and territorial bureaucratically-driven models of NRM were inadequate given recent commitments to First Nations governance. With new governance models being developed by First Nations in the Canadian North, new models for NRM are also being explored. Co-management in mining, fisheries, cultural resources, natural heritage and forests is often cited as a promising approach to governance (Howitt 2001). This approach is illustrative of more than the need for new models for decision-making. Co-management represents a potentially new way of incorporating alternative ways of thinking about resources and management. It provides a micro-landscape for exploring shared understanding within the context of different epistemologies and practices.

In the Canadian North 'co-management' is a commonly used yet general term originating in the cooperative, collaborative and consensus-based aspects of NRM management (Plummer and Fitzgibbon 2004a, 2004b). Generally speaking, co-management is predicated on the basic principles of shared decision-making power and responsibility, and negotiation rather than litigation as a means of conflict resolution (Pinkerton 1992). In contrast to co-management as an end result, it likely represents a stage in the adaptive yet interdependent relationships which are at the core of NRM practices (Carlsson and Berkes 2005, Berkes 2004).[50] Co-management as process follows Nicolas Rose's (1999:279) suggestion that "the way beyond government is to examine the ways in which creativity arises out of the situation of human beings engaged in particular relations of force and meaning, and what is made out of that location." As a matrix of interdependency, co-management has three faces: the knowledge bases that underpin language and the expression of cultural values; the management strategies seen as cultural adaptations; and our choice of institutionalization of strategies and knowledge (Jacobs and Mulvihill 1995). Moreover, in the Canadian North co-management is both foundational as well as an indicator of the relationship between aboriginal and non-aboriginal society (Sherry 1999).

This chapter on co-management represents the frame within which my dissertation rests. My research took place amidst a landscape of land claims based co-management in the NWT. Co-management therefore represents a governance process and the context for my exploration of the place of shared understanding in NRM practice. As a result, this form of resource management requires deeper examination of its central premises and potential to act as a vehicle for greater social change. In this chapter, I discuss the need for northern co-management and its development in a variety of forms. I explain how co-management has progressed from a relatively rigid state-driven process to one that is more locally-driven and of a relational nature. The final part of the chapter explores co-management in terms of bricolage, an adaptive yet politically charged form of resource management. Seen as such, co-management represents a novel approach to not only managing resources but also creates diverse partnership arrangements and strategies. This chapter thus sets the stage for subsequent chapters and ideas.

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[50] I observed, from personal experiences working in the NWT, that the perception of state-public co-management as an end result was commonly held by a number of people, most notably in government circles. However, Armitage and his editorial colleagues (2007) conclude their edited book *Adaptive Co-management* by proposing that innovative strategies may arise from co-management arrangements involving three kinds of institutions: communal, governmental and private/market.

MANAGEMENT OF NATURAL RESOURCES

The past decade has witnessed a number of decentralized institutions for resource management in an attempt to address the crises, conflicts and dilemmas surrounding common property management (Spaeder and Feit 2005). Of these institutions, co-management is the most widely discussed and logical form for dealing with commons management of resources at two or more levels (Berkes 2006, Carlsson and Berkes 2005). A brief explanation of the terms 'resource' and 'management' is required here as some observers of co-management have questioned the compatibility of using the terms between traditional aboriginal and western societies (Nadasdy 2003, Stevenson 2006, Kendrick 2003, Morrow and Hensel 1992). Natural resources are components of nature that are used or estimated to have utility for people through their cultural and technological determination (Borrini-Feyerabend 2004). As a function of their use they shape demand. Demand and scarcity are incentives that regulate the use of resources, and along with management and use regulations characterize a society in terms of property rights (Murphree 1997). Property, or ownership and entitlements, is the allocation of resources under defined limitations. Property regimes are variable (and intermixed in formal and informal systems) but can be organized in four general types. Communal or common property regimes are regulated by an identifiable community of users where regulations are made and enforced culturally and locally;[51] state property is a common property regime but with sole government jurisdiction and centralized regulatory controls; open-access resources are available to anyone as they are without formal jurisdiction; and private property where rights are privatized through establishment of ownership (Murphree 1997, Bromley 1991). Each of these systems contains distinctive rules and regulations for resource management.

It is worth noting that Elinor Ostrom observed that "any single, comprehensive set of formal laws intended to govern a large expanse of territory and diverse ecological niches is bound to fail in many of the habitats where it is supposed to be applied" (Ostrom 1994:1). Unfortunately governments have steadfastly ignored this and instead have become trapped in the belief of policy panaceas (Ostrom 2007a) by attempting to employ a limited number of policies and legislation over diverse biological, socio-cultural and political systems. Quite often co-management of natural resources between managers at the state level and resource users at the local level has fallen into this co-management pitfall. In fact, analysis of co-management easily led to disenchantment of its potential due to the lack of case study analyses, overenthusiastic formulaic and even functionalist positions on co-management (Agrawal and Gibson 1999). The result of this recent history is that much co-management analysis has avoided understanding co-management as arising from and shaped by resource conflicts, contested property rights, and political-economic strategies (Spaeder and Feit 2005, Stevenson 2004, Notzke 1995). Integration of these perspectives and problematics are needed in order to further the concept of co-management.

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[51] A common property regime refers to a specific social arrangement regulating the preservation, maintenance, and consumption of a common-pool resource. Common pool or common property resources are difficult, but not impossible, to exclude others' use. In this way they are subtractable in that the use of commons resources by one person or group, subtracts from others' use. The most common examples of common property resources include forests, fisheries, grazing pastures, and irrigation systems.

Co-management of Natural Resources

There is no single appropriate definition of co-management due to the many dynamic arrangements that are currently being explored, developed and implemented. Indeed some believe it would be pointless to try to precisely define the term co-management because of its evolutionary nature and variety of arrangements (McKay 2002, Berkes 1994).[52] As a starting point towards a general description of resource co-management, Ostrom and Schlager (1996) noted that resource management is the right to regulate internal use patterns and transform a common pool resource by making improvement. Expanding on this further, central to most definitions of co-management are the distribution of rights and responsibilities pertaining to a particular resource. Early on, Pinkerton (1992, 1989) suggested that co-management usually develops around common pool resources such as fisheries or forests because these are vulnerable to over-exploitation by private individuals, by large corporations, and by state agencies under the influence of private and corporate interests. Generally though, co-management arrangements involve genuine power sharing between community-based managers and government agencies, so that each can check the potential excesses of the other (Berkes et al. 1991). Singleton (1998:7) expands on this by stating that co-management is "the term given to governance systems that combine state control with local, decentralized decision making and accountability and which, ideally, combine the strengths and mitigate the weaknesses of each." The commonality between the many definitions of co-management appears to be the explicit association among three characteristics: the partnerships existing between public and private actors, its existence as a dynamic state and process where variable forms exist, and the bridging of scales in collaboration and application (Carlsson and Berkes 2005).

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[52] However difficult to define, unpacking of the term 'co-management' may yet be required. The term 'cooperative management' is frequently and interchangeably - but uncritically - used alongside 'collaborative management' in the Canadian North as well as in the resource management literature. In fact, the terms are often so unspecified that 'co-' is more likely to be used to express a general sense of working together. However, it may be that collaboration, unlike cooperation, requires the parties involved in a project to dialectically and jointly solve problems through consensus whereas cooperation might just as well be for one party to submit in the decision making and problem solving processes. Although a seemingly subtle difference, the cooperative-collaborative distinction has yet to be critically examined in the co-management literature (see Plummer and Fitzgibbon (2004b) for an initial attempt).

Perspectives on Co-management

Even though there are agreed upon attributes of co-management, it can be understood differently in a number of ways and from different practical perspectives and academic standpoints. Co-management can be understood as a response to complexity and multiplicity of boundaries and actors (as management of complexity); as harnessing complementary management capacities (as efficiency); as equitable sharing of costs and benefits (as financial); in the form of agreements and negotiations where learning is a process (as social and political learning); as indigenous self-defence to withstand a variety of socio-cultural, political and environmental threats (as resistance); and broadly as the foundation of a social institution (Borrini-Feyerabend 2004). In Canada, co-management is broadly acknowledged as arising from comprehensive land claim settlements, as a means of crisis resolution (such as legal rulings), or as a multi-stakeholder approach to NRM (Notzke 1995, Stevenson 2004). Notzke, in one the first co-management papers in the then-new literature, suggested that a promising area for co-management is as a strategic form in which it is seen as a "Euro-Canadian device" of adaptive empowerment (P. 206).[53] Evidence of strategic co-management reveals that while it may indirectly affect resource development as a modification structure, it likely will not directly challenge NRM without also addressing power imbalances (Treseder and Krogman 2002). Treseder and Krogman propose increased investigation into relationships between co-management, conflict, and community empowerment.

Social scientists suggest co-management include more socio-political considerations such as negotiating and redefining the relationships between the people involved in NRM (Goetze 2005, Feit 2005). Spaeder and Feit (2005) observe that co-management has been accepted and promoted by both government agencies and local communities often for disparate reasons. On the one hand state resource managers see co-management as a means for reducing resource conflict; a means to improve cross-cultural communication and knowledge collection and sharing; and a way to increase compliance with conservation and management systems. It has been frequently argued that NRM co-management is akin to development in that it is one way of extending a nation state's capacity to govern by extending the institutions and means by which people become subjects of governance (Nadasdy 2007, see also Ferguson 1990). Local communities, on the other hand, have welcomed co-management as a potential means to counter state dominant management systems, as a vehicle to ensure local livelihoods are maintained through local control of resources, and possibly to establish local resource rights and management practices without political and legal struggles (Spaeder and Feit 2005,

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[53] Notzke (1995:207) also notes the promising approach of co-management as a constitutional right where self-government is part of the new co-management model (see also Howitt 2001).

Goetze 2005, Feit 2005, Spaeder 2005). Within these observations, co-management is seen not in black and white terms of success versus failure in resource management outcomes and participation rates, and but rather as "attending to political and historical contexts, unequal struggles, and effects of co-management" (Spaeder and Feit 2005:149, see also Mosse 1997, Cleaver 2000, Borrini-Feyerabend 2004).

Interdisciplinary researchers, in contrast to critical social scientists, have taken an approach that explores co-management in the positive light of linked social-ecological systems. Most recently Armitage and colleagues (2007) suggest that co-management is at a crossroads due to increasing social and ecological complexities. To address this complexity they propose 'adaptive co-management' as the convergence of scientific adaptive management, social learning theory, resilience, and social-ecological complexity[54] through a flexible and transformative form of governance (see also Olsson et al. 2007, Olsson et al. 2004, and Berkes et al. 2005). While all of these approaches have much to offer, they are not entirely compatible due to their disciplinary standpoints. The difference is illustrated by the metaphor of co-management between community and government. Berkes et al (2007:320) see co-management as a dance changing from "two to tango…[to one of a]…Filipino or Turkish folk dance…[with]…successive rounds of dances in which the dancers will build social capital and learn to be more in step with one another." Critical social and political scientists, in contrast, might suggest that the uncertain relationship between power, conflict and complexity in NRM could lead to increased incidence of toes being stepped-on whilst on the crowded co-management dance floor.[55] To be sure, both observations have merit when considering resource management from multiple perspectives and vantage points on the epistemological periphery.

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[54] Complexity has a long history in the natural sciences (for example in the work of biologists Francisco Varela and Humberto Maturana and their contributions to philosophy), and has recently been applied to social systems of resource management. Using the premise of nature's nonlinearity and unpredictability, and combining it with general systems theory of connectedness and wholeness, complex systems theories attempt to capture the operation of social-ecological systems (Berkes et al. 2003). Social ecological systems consist of attributes including nonlinearity, uncertainty, emergence, scale and self-organization (Berkes et al 2003). Building resilience, adaptation and cross-scale linkages into social systems are suggested as necessary in order to cope with increasing socio-ecological complexity.

The Co-management Spectrum

The previous section illustrates that co-management involves varying dimensions of power sharing and collaboration between state and local levels of management. Although occurring in diverse ways, state-level management is carried out by a centralized authority such as a federal or territorial agency. Its management ethic is often based on sustaining various features of the landscape and species, and its practices are based on sound scientific management. In contrast, local-level systems are decentralized, and more likely to be based on traditional knowledge and local enforcement. Issues of property rights and resource ownership are related not only to the question of access to resources but are considered central to issues concerning the social and economic health, resource conservation, and self-government in aboriginal communities (Berkes 1994). State-level and local-level management systems are but two types of management. What exists however is a spectrum of partnership agreements which involve varying degrees of power-sharing (de Paoli 1999, Carlsson and Berkes 2005, Plummer and Fitzgibbon 2004a).

Seeing co-management as a spectrum effectively allows for a re-visioning of the role of an aboriginal community from one that is limited to passive or partial involvement in resource management to one of dynamic participation in decision-making (de Paoli

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[55] I appreciate anthropologist Christopher Fletcher's wry observation on the metaphor of dancing dexterity and co-management made after a Fikret Berkes 2007 presentation at the University of Alberta.

1999). Building upon previously established models and examples of aboriginal participation and co-management (Berkes 1994, Campbell 1996, and Pinkerton 1993), de Paoli developed a simple yet effective conception of co-management (Figure 2). The model is illustrated by a horizontal continuum to de-emphasize the top-down approach in vertically represented ladder-type models and focuses on variable sharing of power between aboriginal communities and the state or industry, rather than solely on the transfer of power to enable aboriginal participation. The model also portrays general characteristics of co-management as indicators of the underlying process through which they operate; these include pluralism, communication and negotiation, transactive decision making, social learning, and shared action and commitment.[56] Moreover, the horizontal-based model accurately displays the highly variable and fluid nature and context of aboriginal roles within each level of participation. This feature addresses what Long (1992) sees as many NRM models' shortcomings: an abstract and homogenized form of agency.

The roles of aboriginal groups tend to change depending upon the specific nature of the resource, the social, political, and cultural context which surrounds it and the range of associated management functions (de Paoli 1999). Any one level of participation or related management regime has the potential to include several kinds of power sharing and involve aboriginal groups in a number of decision-making roles. This supports the suggestion that traditional resource management systems are not being lost but rather that the lines between existing knowledge systems are becoming increasingly blurred as reflected in co-management institutions where dual systems can function simultaneously (Bateyko 2003). Co-management is then a novel two-way approach to ecosystem management that does not integrate or assimilate one at the expense of the other. I illustrate the de Paoli model using the two case studies from my research to show the adaptive and flexible nature of co-management (see Figure 2). The community driven processes of developing a GBLMP and permanent protection of the cultural landscape of Sahoyúé-ʔehdacho demonstrates a flexible and dynamic form of NRM. The cases reflect Délı̨ne's objective to "…co-develop a unique co-governance model for the land that will involve power sharing with Canada and the ability to coordinate resources with other organizations…" (Grieve 2003:44-45). The two cases are heavily weighted toward true partnerships with community control of the planning process and decision-making, allowing for use of traditional structures (see Figure 2).

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[56] Plummer and Fitzgibbon's recent conceptual framework for co-management further describes preconditions for co-management including a real or imagined crisis; willingness for local users to contribute; opportunity for negotiation; legally mandated/brokered/incentive; leadership or energy center; and a common vision or existing networks. They also provide a framework for outcome analysis including equity and efficiency in decision making; legitimization of actions; and increased capacity (2004a:880-882).

Type and Characteristic of Participation	Informing	Consultation	Cooperation	Communication	Advisory Committees Councils	Management Boards	Partnership	Community Control
Characteristics of Participation	**Community informed about decisions already made, one way communication between government agencies and community**	**Some face to face contact, community input heard but not necessarily heeded or involved late in decision making; limitations of involvement continue to be set by the government agency's mandate**	**Community starts to have input into management, local knowledge is solicited, community members are involved at a low level, process still limited by management agency's agenda**	**Start of two way information exchange; local concerns begin to enter management plans; joint management actions may take place without joint jurisdiction over the resource**	**Partnerships in decision making begins; joint action in common objectives, local communities have advisory powers only; decisions are non -binding**	**Community is given the opportunity to participate in developing and implementing plans; local input plays more than just an advisory role**	**Partnership of equals; joint decision making institutionalized and formally recognized; control delegated to the community where feasible**	**Decisions can be made independent of government with limited governmental involvement, most or all the management power is formally delegated to community for local resources**
Management Regime			Government Management			Co-Management	Community Based Resource Co-Management	Community-Based Resource Management Traditional Resource Management
Aboriginal Role in Decision Making	**Aboriginal participation as citizen, as interest group, as stakeholder, or as another government**							
	Crown Consultation Unit on Mackenzie Gas Pipeline	JRP Hearings in Délı̨ne on Mackenzie Gas Pipeline		DRRC GNWT Relationship	GBL Advisory Committee	SRRB	Sahoyúé- ʔehdacho; GBLMP; Sahdae Great Bear River Hydro Project	Délı̨ne Knowledge Centre; Délı̨ne Self - Government; Access and Benefit Agreements

Figure 2: Levels of Aboriginal Participation and Decision Making (modified from DePaoli 1999)

COMMUNITY-BASED RESOURCE CO-MANAGEMENT

Community based resource management (CBRM) is a critical and central element in co-management (Pomeroy and Rivera-Guieb 2005, Berkes 2006, 2004). Differences exist between CBRM and co-management yet they are inextricably linked. An oft-cited example of CBRM is the traditional resource management systems in which indigenous harvesting and management are tightly coupled (Pinkerton 1993, Berkes 1999).[57] The phrase CBRM is often more readily used that co-management to refer to the people-centered, community-oriented and resource-based process of managing resources. It begins with the basic premise that people have the innate capacity to understand and act on their own problems including the active participation in the planning, implementation and evaluation of resource management programs (Pomeroy and Rivera-Guieb 2005). Within CBRM the central theme is empowerment through the control over and ability to manage resources to meet local needs and conditions. A local level of empowerment is expected to allow a greater degree of flexibility and possibly adaptation. The large body of literature on the local-level commons often falls under the rubric of CBRM, and was used to develop much of the 'scaled-up' commons theory of meso-level and macro-level systems, including co-management (Berkes 2006). But because CBRM actually takes place in the context of larger and more complex ecosystems and socio-political systems, it cannot avoid including stakeholders at different scales.

The level and timing of government participation in NRM is one of the key differences between co-management and CBRM (Pomeroy and Rivera-Guieb 2005).

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[57] See Figure 2 where CBRM is illustrated by the right hand side of the management regime section.

CBRM often focuses on people and local communities whereas co-management 'scales up' to typically include partnership arrangements between government and the local community of resource users. The focus of co-management is of broader scope and scale than CBRM and includes a major and active government role in regional and national level issues incorporating multiple stakeholders who are brought into community processes. Government and external agencies might be seen as external and problematic to a traditional CBRM process. If incorporated, their support may only be sought late in the community based process to improve subsequent relationships and needed services.

Where community-based processes are integral to co-management, the result can be considered community-based resource co-management (CBRC) (Pomeroy and Rivera-Guieb 2005). Community-based resource co-management integrates the characteristics of both CBRM and co-management; that is, it is people-centered, community-oriented, resource-based and partnership-based. As Figure 2 illustrates, local actors assume a stronger participatory role but are still part of a collaborative and cross-scale management regime. For example, the development of the GBLMP is seen by Délı̨ne leaders as

> inherently evolutionary…organically linked to the development of a self-government administration in Déline. They take a long-term, historical view of the role of the Management Framework — and subsequent management agreements of various sorts — in the realization of a central and meaningful role for Déline in the management of the lake and its watershed. In short, they want a management framework in which they have a sense of ownership; that takes real steps towards Déline playing its traditional stewardship role; and that is open to further evolution (Nesbitt 2003a:15).

Thus, CBCM has the community as its focus, yet recognizes that to sustain such actions, cross scale linkages are needed horizontally across and between local communities and vertically or external to the community organizations and institutions such as government and other agencies (Pomeroy and Rivera-Guieb 2005, Berkes et al. 2005, Young 2006, Berkes 2006). However, co-management variations have much overlap with one another. Most instances of NRM co-management are more complex and sophisticated than might be deduced from mainstream co-management discourse and literature as simply the sharing of power and responsibility between government and local resource users. As a result, co-management in its various guises encompasses the idea that "rich webs of relations and agreements" are found in many real-life cases which are embedded in a wider institutional context (Carlsson and Berkes 2005:69), often with multiple faces operating simoultaneously (de Paoli 1999).

RELATIONAL CO-MANAGEMENT

The rich webs of social relations found in many cases suggest that it is valuable to more closely examine co-management from an intersubjective point of view.[58] Recently, attention has been raised in commons and resilience literature about how proponents of collaborative approaches are "unnerved by the way in which these processes have been portrayed as a cure-all" for solving resource governance problems (Conley and Moote 2003:382). Co-management as a resource institution is no different. The success of a management process can quickly be rendered technical and applied without taking into account the context and relational factors that originally created it. Although co-management established through land claims is likely more resistant to change than co-management arising from crises (Notzke 1995), opportunities exist for novel and alternative forms to be developed through an intersubjective approach.

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[58] The concept of the relational has a rich history in sociology, social psychology, social theory and philosophy. For example, the theories of symbolic interactionism arising from the works of Erving Goffman, George Herbert Mead, and Charles Horton Cooley as well as Alfred Schütz' development of social phenomenology are all key theorists contributing to understanding social relations in social life.

In Délı̨ne planning workshops, co-management is understood in two different ways, neither being mutually exclusive of the other. The first is relationally within collaborative processes (Nesbitt 2005) while the second refers to a co-management as politically negotiated between Délı̨ne leaders and federal government representatives.[59] Implicit is the fact that Sahtugot'ine elders understand and "like the idea of cooperation" and "support co-management" in watershed management[60] to the point of researching "cooperative management models" toward options on aboriginal cultural landscape management.[61] This is consistent with Rushforth's ethnography on Sahtugot'ine knowledge and authority that observed the necessity of the "person who has a heart" working together with others but within a sphere of strong individual autonomy (Rushforth 1986:257, see also Rushforth 1992). Soon after a senior federal government official publicly stated that "Délı̨ne is in the drivers seat, with both the territorial and federal governments assisting"[62] a Délı̨ne elder noted that "it would be good for people in Délı̨ne to manage the lake but we realize that we need people and organizations like RWED, DFO, and DIAND to help us and to work together."[63] Other government agencies reported similar experiences working with Délı̨ne leadership and elders.[64] One Parks Canada official observed: "it's rare, if not unheard of, that a community like Délı̨ne approaches Parks Canada and says that they want to work with Parks Canada and moreover have such common visions."[65] It is this strong sense of individual autonomy interwoven with cooperation and moral economy that allows for co-management to be propelled forward out of a potentially static theoretical state.

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[59] In negotiations regarding protection of Sahoyúé-ʔehdacho Délı̨ne leaders discussed the use of management terms such as co-management and joint management but without any consensus on the term to use. It was decided to recommend that SEWG Final Reporting use shared management and co-management "in a general way" to allow for modification and development of management institutions (Délı̨ne leadership comments on SEWG Final Report, Oct 27, 2006).

[60] Field notes. Sahoyúé-ʔehdacho Directions Confirming Workshop, Délı̨ne, November 8, 2005.

[61] Meeting notes from Sahoyúé-ʔehdacho Working Group Meeting, Whisky Jack Point camp on Great Bear Lake, July 16-18, 2001.

[62] Report on Workshop to Develop a Management Plan for Great Bear lake and its Watershed, Délı̨ne Cultural Centre, Délı̨ne, January 26-29, 2004

Relationally, co-management is based on the dynamic process of unfolding social relations. Co-management as an institution is constructed of social structures - empty abstractions until considered with associated individuals (Emirbayer 1997:287-288). Indeed, Karl Marx notes that "capital is not a thing, but a social relation between persons which is mediated through things" (1977:932) and Pierre Bourdieu observes that fields are spaces where social relations are strategically played out (1990). The key point with respect to co-management is that it cannot be envisioned as a technical, agent-less process. For co-management to move beyond its present state, it must be considered from the standpoint of the people and relations that comprise it. This in turn requires examination of the shared understandings between actors, the impact of cultural influences, and effects of political structures against the backdrop of uncertainty or complexity.

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[63] Field notes. GBLWG workshop, Délı̨ne (October 22, 2004)

[64] When using the phrase "Délı̨ne leadership" I am referring to three levels of leadership in the community. First, it includes formal leadership positions such as elected First Nation Chief and Counselors, and Presidents of the Land Corporation and Renewable Resource Council. Second, strong leadership, mentoring, and guidance is provided socio-culturally by Délı̨ne elders. Third, leadership includes local people who hold formal leadership roles outside of the community but are still part of informal decision making within community processes; for example membership in regional co-management boards.

[65] Field notes. Sahoyúé-ʔehdacho Directions Confirming Workshop, Délı̨ne (November 9, 2005)

BEYOND CO-MANAGEMENT

> 'Uncertainty' can variously be mobilized as a tool to help local people to help themselves, as a tool to manage or control them, or as a shield against the effects of 'simplicity' imposed through politics from above" (Mehta et al. 2001:9)

Local leaders in Délı̨ne, discussing how best to manage GBL, stressed that "'simple' does not describe the current politics or administrative structures affecting Délı̨ne" (Hamre 2002:6). Management of resources can no longer be seen as a simplified process in an uncomplicated social and political context. A GBL working group member observed that,

> Délı̨ne now is faced with far more demands than it was even just a few years ago and that's testing its capacities because if they're allowing these companies in their land, they should invest to the same degree in their capacity to deal with these questions and ensure that the conservation side is met as well and that the hunting, fishing and trapping economy is protected as well, and it's hard to keep that balance.[66]

At the same time, government resource managers are faced with "logistical challenges to even try to implement some of the types of things that we'd really like to be able to do…so it becomes a triage thing; you've only got so much time, so much money."[67] Even for ENGO working group members, complexity is

> a systemic issue. It's not just government. Like, I don't have time to think…but it's really a universal issue in our jobs up here maybe because there's only so many people and there's such crazy complicated stuff going on when it comes to resource management.[68]

These above examples illustrate the multifaceted phenomenon of community-based resource co-management and indicate the complexity hidden within (Berkes 2006, McKay 2002). The above quotes also point to new approaches that might arise out of institutional uncertainty where relational flexibility and adaptation is necessary in rapidly changing socio-political conditions.

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[66] Interview transcript.
[67] Interview transcript.
[68] Interview transcript.

Adaptive Co-management

The idea of looking beyond co-management is not new. In fact co-management proponents were carefully considering how co-management was likely to evolve well while the co-management body of literature was developing (see for example Ruitenbeek and Cartier 2001, Berkes and Folke 1998, Buck et al. 2001). One of the most interesting approaches derives from the merging of adaptive systems and complexity thinking. In contrast to simple and linear systems thinking, adaptive co-management addresses multiple perspectives and epistemologies, non-linearity and uncertainty, issues of scale, and self-organization and emergence of networks (Berkes 2007, Berkes et al. 2003). Adaptive co-management is founded on theories of complex systems theory, deliberative discourse, social learning and social capital development, and especially adaptive capacity and resilience theory (Armitage et al. 2007). This variant of co-management is, for the most part, theorized through a systems lens.

In response to the functionalist challenges of adaptive co-management, a parallel body of research from within social and political science has been suggested as messy co-governance (Feit 2005) from the standpoint of institutional uncertainty (Mehta et al. 1999). This perspective, highlighted by social complexity, is defined by ambiguity and inconsistency that is at odds with a systems approach to co-management where connections and progress are inherently a part of the developing theory. Co-management is messy due to the diversity and differences within social relations, and influenced by social processes metaphorically described as bricolage.

Co-management and Institutional Bricolage

Bricolage is the use of a combination of practices by a social group, taken from different sources and with different original meanings which, when combined, convey a newer single meaning more appropriate for a given situation (Abercrombie et al. 2000). The structural anthropologist Claude Lévi-Strauss first introduced the concept of bricolage to the social sciences. He saw technology and division of labour as being fixed at a certain level over generations. Creative thinking was thus limited by a certain level of stable technology and pattern of work (Douglas 1986). Intellectual bricolage represents a shift in focus from the physical to the cognitive. The mind employs a "full range of witty parallels and inversions, with elaborate transformations on its stock of analogies" to develop new ideas and ways of thinking (Douglas 1986:66). Mary Douglas expands bricolage from the individual and sees institutions as constructed through a process of bricolage – the gathering and applying of modes of thought already established within existing institutions (Douglas 1986). The concept of bricolage has thus traveled from the do-it-yourself individual to a potential application in institutions faced with complexity and uncertainty.

Frances Cleaver's (2002, 2000) critical research on rural water management systems was the first to utilize the concept of bricolage to examine and explain the dynamic nature of social relations in NRM institutional arrangements. In essence she questions the value of attempts to over-rigorously characterize social relations and categories of values and meanings in indigenous resource management systems (Cleaver 2002). In contrast to theories or concepts which view social practices as deterministically structured, Cleaver explicitly centers the role of agency in social change. She acknowledges structure and power yet illustrates the more dynamic and adaptive role of agency in institution-building by highlighting knowledges and practices in NRM institutions. Central to Cleaver's understanding of institutions is that collective management of natural resources does exist, but that it is changeable and evolving, and less attributable to single factors than those suggested in much of the common property literature (Cleaver 2002, see also Mosse 1997). Co-management seen this way suggests that a complex understanding of human motivation is required to understand NRM institutions, which in turn requires an examination of institutions as making people by providing a sense of identity, preferences and purposes (Stoker 2004). The application of bricolage to institutions (including co-management) is in effect, a response to the perceived weakness of designing institutions.

Elinor Ostrom's research on design principles for robust and enduring common property resource management institutions (Ostrom 1992, 1990) remains foundational in NRM.[69] Yet, design principles tend to be interpreted as a blueprint for deliberative institutional crafting. Subsequently, the principles spawned tendencies to over-prescribe the formalization of institutions (Mehta et al. 2001, Stoker 2004,

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[69] Briefly, Ostrom's design principles include: clearly defined boundaries of jurisdiction; clearly defined user group or community manages the resource; locally developed and applied appropriate rules; clear identification of rights to resources and rules about them; resource users take part in decision making; decision making take places in public fora with open access; accountable monitoring and effective authority structures; consistent, rapid and impersonally graduated sanctions for non-compliance; conflict resolution mechanisms are clear, accessible and rapid; and the 'nesting' of local institutions with other levels of decision-making and governance allows multi-layered management of resources in larger complex systems (Cleaver and Franks 2005:3).

McKay 2002, Cleaver and Franks 2005). Ostrom (1990:42-45) however, originally intended for her work not to be seen in such an authoritarian light but rather used within the circumstances and contexts in order to help individuals develop their own solutions through institutional arrangements. The process of institutional formation as bricolage is challenging to design principles in that it is less determined, and more partial, informal and historically embedded than previous institutional theorizing and application.[70] Cleaver and Franks (2005:4) express the concern held by many social scientists by noting that the "nature of social life renders such clear principles problematic" (see for example Pierson 2000, Stoker 2004). Within the commons literature human ecologists have proposed an embedded or "situated rational choice" approach to neo-institutionalist perspectives. An embedded approach looks more to the influence of the social, cultural, ecological and political situation of the individual or other decision making entities as relevant to the historical and geographic context (McKay 2002). This, in a sense, replies to Ostrom's call for a concerted effort to develop a "second-generation theory of boundedly rational and moral behavior" (Ostrom 1998:16).

In developing a reasoned but dynamic process, Cleaver (2000, 2002) utilizes the culturally driven concept of moral ecological rationality to illustrate institutional bricolage. Moral ecological rationality links individual and collective action to environmental well-being through the multi-focal lens of social relations. This model of decision-making is strongly interwoven within culture, history, and human-ecological contexts (Cleaver 2000). Institutional bricolage explains how arrangements for resource management and collective action are borrowed or constructed from existing institutions, styles of thinking and sanctioned social relationships (Cleaver 2002, Lane 2002). Considerations within institutional bricolage include: complex identities and norms of agents, a common practice of cultural borrowing and adaptation of institutions to multiple purposes, and a prevalence of common social principles which foster cooperation and conflict avoidance between stakeholders (Cleaver 2002, Cleaver and Franks 2005). Different actors as "bricoleurs" are likely to apply their knowledge and power in respect to social relations, collective action and resource management in differing ways with the result being a rich diversity of adaptive and flexible institutional arrangements.

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[70] To some extent Ostrom, amongst others, are currently exploring similar ideas of the potential for a multiplicity of social and bio-physical solutions, albeit through the lens of complexity and systems thought (Ostrom 2007b, see also Gunderson et al. 2006, Kofinas et al. 2007).

Cleaver, echoing others (Natcher 2000, Lane 2002, Upton 2005), proposes that resource management institutions are "multipurpose; management may be both intermittent *and* robust, an integral part of social relations *and* subject to negotiation" (Cleaver 2000:379; original emphasis). Institutions exist only in as much as they are continually practised; which in turn make and re-make rules and norms. For example, Kruse and colleague's 1998 comparative analysis of caribou co-management processes between Alaska and Canadian territories demonstrates that informal social relations between Alaskan state managers and community members leads to informal yet real institutional change. They found that this differs from the more formalized relationship between Canadian resource agency's managers and resource users that produces little practical change (Kruse et al. 1998). The continual making and re-making of rules, norms, and institutions is not without danger of being seen as theoretically eclectic and practically irrelevant within the realm of institutional analysis. An emerging view on institutions incorporating diversity, flexibility, and the blurring of hierarchical structures usefully broadens and deepens the rather limited gaze of mainstream institutional understanding. Yet as a post-institutional approach to the building of resource management institutions,[71] further exploration is required on the potential of institutional bricolage to encompass theory that explains power as inextricably bound in social structures.

The growing body of post-institutional research and associated concepts suggests a need to explain how multiple understandings of resource management can be utilized toward the development of practical systems premised upon plurality, plasticity, and culturally adaptability. As critical social scientists have indicated (Nadasdy 1999, 2003, Feit 2006, Spaeder and Feit 2006, Goetze 2006, Stevenson 2006, Adger et al. 2005), the above concepts and research programs must be considered within a thicker conception and field of power; as meaning, perception and understanding are inevitably complicit in power relations, and vice-versa.

CO-MANAGEMENT AND POWER RELATIONS

The inclusion of non-aboriginal interests in discussions and negotiations with aboriginal peoples over land and resources requires engagement with disparate and often divergent aboriginal and western science-based theories of knowledge, language and power. Cultural miscues, misunderstandings and profound incomprehension in these examinations can have consequences for relations between aboriginal peoples and non-aboriginal development processes (Christie and Perrett 1996, Kruse et al. 1998, Fienup-Riordan 1999, Ellis 2004). The use of the term 'power relations' is appropriate here as power is seen as relational. The power held by one person is only in relation to others and so requires analysis of the roles of those other actors in the relationship. As figure 2 illustrates, power exists not only in the knowledge held but also how that knowledge is applied relative to social and political conditions. In modernity, language has taken on increased significance in knowledge application, with varying results.

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[71] A post-institutionalist approach, relative to mainstream institutional ideas, calls for a "nuancing of previous approaches" by taking a more ethnographic stance to analyzing resource management centering on the "dynamic interplay of history, socio-political and economic context, process, practice and agency " (Mehta et al. 2001:8, see also Stoker 2004). Mehta and colleagues observe that this implies "a downplaying of the importance of 'design principles' and managerialist forms of intervention, and a greater emphasis on power dynamics, negotiation and contestation of institutional arrangements across multiple scales" (2001:9).

Language used by resource management experts often serves to silence, discursively as well as symbolically; empowering some over others in the process of decision-making (Fischer 2000). The symbolic power of language (Bourdieu 1991) can act as a roadblock of suspicion to deeper discussions on the use of science and traditional knowledge in resource management. For example, Nadasdy (1999) found that suspicion of scientific discourse in Yukon sheep co-management processes existed yet was stifled due to the symbolic power of language used by state managers and scientists. In my experiences in Délįne, elders and some younger leaders were critical of the language used in working group processes and chose to address this through a variety of solutions. Sometimes this was a simple as requiring more time and careful explanation while at other times they delayed or halted the process entirely in order to challenge project leaders and facilitators to come up with solutions to address intimidating and confusing language issues.[72] The point being that the language which predominates in the type of discussions illustrated above can easily become a form of power and later, held-capital, either supporting or challenging existing power structures.

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[72] This will be further explored in following chapters.

It is often argued that western and aboriginal knowledge systems are often incommensurate and that there is no way to integrate them that does not do violence to one or the other (Nadasdy 2003, Stevenson 2004). Government scientists and managers, in their official capacities, are structurally constrained and cannot easily act upon alternate understandings of the world. Through an "ethnographic understanding of the state" Paul Nadasdy explored state power, examining how it is exercised and experienced through everyday practice in co-management and land claims negotiations (2003:269). Aboriginal peoples are forced to speak and act in uncharacteristic ways, debates over land and animals are framed in terms of property relations, and aboriginal society is bureaucratized in such a way as to undermine the social relations, practices, beliefs and values that were originally intended to be preserved through the co-management process (Nadasdy 2003). This process leads to a form of "deep-colonizing"; that is, practices of colonization embedded in the very institutions that are meant to reverse the processes of colonization (D. Rose 1999:182). Despite the above examples, the exercise of power can be shown to be even more subtle and strategic, possibly pointing to ways of exploration in which power works through people rather than only on them.

Mosse's (1997) rural development work on south Indian water management demonstrates the importance of symbolic capital with respect to power relations, in this case structures of authority. Water storage tanks represent the symbolic connection points through which economic capital and symbolic capital come to be inter-converted and culturally used in ways that extend economic interests and utility (Mosse 1997). The control of water, with the associated networks of alliance between other tank managers and their rights, duties and even honour, provides individuals with a high degree of symbolic capital. This capital in turn is understood and accepted as credit for labour and services and thus convertible to material capital. Economic capital once gained, is associated with and supports the symbolic power of managing water tanks. Mosse's research emphasizes that institutional analysis of indigenous resource management systems will have limited use unless it initially characterizes the social relations and categories of meaning and value in that particular system. A rethinking of resource management systems must therefore include symbolic as well as material domains and consider variation in institutionalized co-management (Mosse 1997). The interaction of external agencies and programs with local, already contested domains of power and meaning (Li 1996), provides an opportunity for institutional innovation.

Although the meaning of resource management terms are often agreed upon tacitly, they may be contested on a fundamental level and serve to mask deep cultural differences which can "lead to misunderstandings and perceptions of bad faith between the parties" (Nadasdy 1999:3-4). For example, when aboriginal knowledge of the 'environment' is being sought by researchers, non-environmental topics like kinship and respect are just as likely to be presented and discussed by local people as are terms such as wildlife and landscape (Nuttall 1998, Sejerson 2003, Nadasdy 1999, Rushforth 1992, 1994). The exclusion of non-environmental topics likely indicates the imposition of culturally derived relevance by researchers or resource managers as experts. Morrow and Hensel (1992) suggest that scientific terms like management, co-management and sustainable development have no analogues in aboriginal languages. Therefore they are highly negotiable and potentially provide an opening for discussion and adaptation. Typically this opening leads to an institutionalization of language that ultimately narrows the availability of discourse[73] and redefines aboriginal cultures by filtration or distillation through Western categories (Nadasdy 2003). What all these authors imply then is that attempts to integrate science and indigenous knowledge could be considered part of the process of "extending the social and conceptual networks of scientific resource management into local communities" (Nadasdy 1999:12, see also Herbert-Cheshire 2001, Lane 2002, Howitt and Suchet-Pearson 2004).

It appears that within explicitly designed conventional resource management programs attempts to include traditional knowledge unfortunately often do so to bolster scientific data rather than allow traditional knowledge to guide resource management planning and decisions. For example, Cruikshank (1998) observes that oral histories or narratives are unverifiable as codified data because "different strategies for different listeners [would result], depending on their individual life trajectories" and consequently they would later "drop out of the database because it confuses rather than confirms familiar categories" of classification within Western science (P. 57). This deep epistemological division is taken by some to suggest that "solutions to such problems require a radical rethinking and restructuring of aboriginal–state relations" (Nadasdy 2003:268). Bureaucratic institutions however, are likely slow to adopt a radical rethinking governed by greater understanding and response to diverse, locally derived agendas (Scott 1998). This level of change will be examined with respect to the GBL and Sahoyúé-ʔehdacho working group process in subsequent chapters.

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[73] Bruce Kapferer extends this notion to the extreme concept of "bureaucratic erasure" which results from the systematic fracturing and fragmentation of human (lived) experience. With the virtual draining of human context from structured categories of study (which is arguably at the heart of Western bureaucratic management systems), people are distanced from lived experience and the results have real consequences (Kapferer 1995).

Co-management, an institution that has been held up for its potential to overcome inherent problems in NRM, might very well be at what Armitage and colleagues (2007) refer to as a crossroads in its development. As indicated by increasing exposure given to power relations and political economy perspectives on co-management,[74] a need exists to consider NRM from a number of perspectives that may challenge thinking about society and resource management.

CONCLUSION

Critiques of co-management provide little in the way of constructive direction or development for new forms of co-management. Moreover, critical co-management research often contributes to setting up a 'straw man' argument. The wide range of co-management efforts and results are not taken into account and instead co-management is critiqued based on few negative cases. Without understanding its improvement relative to previous management regimes, critical discussion can too easily dismiss claims of the positive evolution of co-management. Yet within critical analysis, the concepts of institutional bricolage and adaptive co-management illustrate that culturally-based forms of institutional theory may be valuable towards a rethinking of NRM in general.

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[74] For example, the recent (2007) book *Adaptive Co-management: Collaboration, Learning and Multi-level Governance* contributes three chapters exploring the political and cultural effects of, and implications on, co-management.

A fundamental rethinking of northern and aboriginal NRM has to include the basic assumptions, values, and practices underlying contemporary processes of resource management such as co-management (Nadasdy 1999, Howitt 2001, Gamble 1986). Social scientists call for an examination of ideological, socio-cultural, and politico-economic challenges to the dominant culture. It is through a critical examination of power relations and the resulting call for alternative ways of examining human relationships that may provide new, yet hybrid, institutions for managing resources. The embeddedness of the idea of co-management within the community-based NRM cases of the GBLMP and Sahoyúé-ʔehdacho can, based on this discussion of co-management, be seen from a number of different perspectives. Incorporating a post-institutional approach such as bricolage in this exploration creates an opening that does not exclude power at the benefit of a complex ecological systems perspective, nor does it exclude social ecological complexity at the benefit of power relations. What it does do is attempt to examine the intersection of power and understanding within specific practices.

Chapter Four:
Great Bear Lake Watershed Management

INTRODUCTION

On the cover of the report *The Real Wealth of the Mackenzie Region* that examines the natural capital wealth of the Mackenzie valley (Anielski and Wilson 2007), a full page photo of Great Bear Lake (GBL) with the community of Délı̨ne along its shores is displayed. The significance of the photos and its use as a statement was not lost on the authors as the World Resources Institute list the region around GBL as an integral part of the last remaining intact or 'frontier forests' of North America and of incredible value from a number of perspectives. These boreal forests are part of the GBL watershed.

In managing an area as large as a watershed, an ecosystem approach is required to address the interrelations and complexities of social and natural systems. The evolution of watershed management must incorporate a multifaceted approach to manage ecosystems at a broad scale and at the same time address natural resource use at a focused and technical level (Bonnell and Koontz 2007). Within this evolution Cortner and Moote (1999) identify four key principles of ecosystem management: collaborative decision making; holistic, integrated science; socially defined goals and objectives; and adaptable institutions. Although problems in ecosystem and watershed management approaches often exist due to a poor fit between practical solutions and management of scale (time and area), and institutional implementation, a movement to manage natural resources at the watershed scale is nonetheless occurring. Such a movement is likely based on overcoming past failures of what Ostrom (2007a:15181) calls “perverse and extensive uses of policy panaceas” in misguided efforts to make social and natural systems sustainable over time. As noted earlier, using over-simplified blueprints in NRM often fall prey to becoming panacea traps. Greater diversification in institutional design, policy, and learning processes are currently debated to address such pervasive problems in managing natural resources (Ostrom 2007a; Brock and Carpenter 2007; Kofinas et al. 2007).

A preference is growing for new watershed governance strategies with a diversity of arrangements but featuring decentralized, participatory, and consensus-based problem solving that can function within traditional bureaucratic institutions (Bidwell and Ryan 2006:827). Rather than entirely top down, government agency-oriented planning, there is increasing activity by community organizations, NGOs, and regional based resource management agencies to collaboratively develop projects, provide solutions and, in some cases, make decisions. Aboriginal people, as key stakeholders, are frequently absent from these collaboration process when it comes to water. In contrast to the world-wide research being developed regarding aboriginal practices in protected areas, the emerging role that aboriginal groups play in managing watersheds and water resources is relatively unexplored (Cronin and Ostergren 2007).

In this chapter I describe the case of lake and watershed management planning for Great Bear Lake. I begin by examining the conceptual issues behind planning and management of lands on a watershed scale. Following this I present an historical overview of Sahtugot’ine land use centered on the traditional use of GBL. Finally, the

Great Bear Lake Management Plan process is described with a focus on the shift from a conventional land use planning process to a culturally driven collaborative plan.

WATERSHED MANAGEMENT

Watershed management initiatives "face numerous obstacles, more social than hydrologic" (Kraft et al. 1999:102). Pereira (1989:54) observed that the key to these initiatives' success is the "…the degree of political commitment to the objectives by those who have authority to act. Regrettably, science can offer no help in this problem". It is within this socio-political realm of science that watershed management currently finds itself. As illustrated in the introduction, an integrated and holistic approach to managing a watershed is proposed as being ideal. Yet there is no agreement on how to develop and implement watershed-based policies and programs (McGinnis 1999). What is agreed upon however is that watershed-scale institutions, in which functions are consolidated at the watershed level, are needed in order to craft and implement watershed policies and programs (Blomquist and Schlager 2005). Collaborative watershed management concepts and theory highlight the importance of the socio-cultural dimension of management strategies and the need to integrate technological tools with broad-ranging social, political and economic change.

Blomquist and Schlager, in examining the role of politics in watershed management, conclude that management should be implemented through watershed authorities with collaborative coordination among existing agencies. This is not unusual as similar conclusions have been made for integrated approaches regarding other resources such as wilderness areas and forests (Berkes 2004, Pinkerton 1998). Despite the consistency of this message, the gap between prescription and practice is still wide due in part to fragmented, uncoordinated yet complex regulations that often promote development over conservation (Blomquist and Schlager 2005, Tarlock 2000, Rhodes 2000). In response, it has been suggested that to examine and explain subtle changes in social institutions, one must recognize the role of inter-subjective relationships as precursors to environmental change (Bonnell and Koontz 2007, Conley and Moote 2003). One way to do this is to examine the models around which watershed management is undertaken. In general, and as figure 3 illustrates, watershed management can be implemented according to three typologies of models based on attributes of membership (Center for Watershed Protection 1998, Moore and Koontz 2003; see also Meinzen-Dick 2007). The circumstances within which a chosen watershed model is applied are not static however. The development of models must take into account such considerations as legislative context, responsiveness to environmental challenges, and integration of conservation with livelihood goals (Senecal and Madramootoo 2005, Reddy 2000).

In Canada, the provinces, through historical resource management and constitutional legislation, exercise proprietary rights over the resources within their borders. Federal government agencies and departments are also responsible for the management of many of these same resources, leading to jurisdictional fragmentation with respect to watershed management. Further north, in the Northwest Territories for example, the issue becomes complex where federal custodianship of resources confronts territorial government responsibilities and aboriginal land claim rights.

Typical Components of Watershed Management Structures

	Government Directed Model	Citizen Directed Model	Hybrid Model
Formation	Created by legislated authority	Created at grassroots level from citizens or interested parties	Created with government authority and citizen support
Membership	Organizational membership is appointed by governmental authority	Stakeholder participation is voluntary	Some members are required to participate, but often volunteers
Authority	Structure has regulatory authority over land use and other permits	Advisory capacity with no regulatory authority over land use or permits	Some members of the structure have regulatory authority, while others act in a volunteer or advisory capacity
Funding	Funding is through taxes or levied fees	Funding is either by grant, donations, or local government contributions	Much of the funding is through a steady source such as an agreement with a local government but grants may also comprise a significant portion of the budget
Implementation	Government agencies at the state, local and federal levels implement the plan	Local governments implement the plan	Local governments implement the plan, with some assistance from state and federal agencies

Figure 3. Typical Components of Watershed Management Structures.
(Source: Center for Watershed Protection 1998)

Water Resource Management in the Northwest Territories

The product of the federal-territorial-land claim relationship is a matrix of land claim-based co-management boards in areas with settled land claims, and federal-territorial government led management boards in non-land claim areas. In relation to figure 3, this northern matrix is increasingly situated toward a hybridized model of watershed management. This complex structure is illustrated by a description of water management in the NWT with an accompanying diagrammatic overview of nested co-management structures in the Mackenzie Valley (see Figure 4).

The Mackenzie Valley Land and Water Board (MVLWB) is responsible for most permitting and licensing of activities related to land and water use for all activities in *unsettled* land claim areas. However, within *settled* land claim areas, such as the Sahtu Settlement Area (Sahtu) where this research took place, the co-management Sahtu Land and Water Board (SLWB) is responsible for most permitting and licensing of activities related to land and water use. The Mackenzie Valley Environmental Impact Review Board (MVEIRB) oversees the examination of potential environmental impacts from development over the entire region. In the Délı̨ne District of the Sahtu, the government of Canada, through DIAND, is the responsible authority for disposition of Crown lands and the Délı̨ne Land Corporation is the responsible authority for private lands.[75] Under land claims legislation, DIAND and the GNWT participate in co-management planning with the MVLWB in areas where land claims are unsettled. Water use and quality, in unsettled claimant areas is controlled directly and indirectly by the MVLWB, the federal Departments of Fisheries and Oceans (DFO), and Environment. Comprehensive land use planning for the Sahtu, including water bodies, falls under the purview of the Sahtu Land Use Planning Board (SLUPB). Unlike the provinces, the GNWT does not own the natural resources and most natural resources, and so must work closely with federal government agencies and co-management boards.

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[75] The Délı̨ne Land Corporation assumed the Sahtu Secretariat's responsibility for Délı̨ne District lands as established through the Délı̨ne Self Government negotiation process.

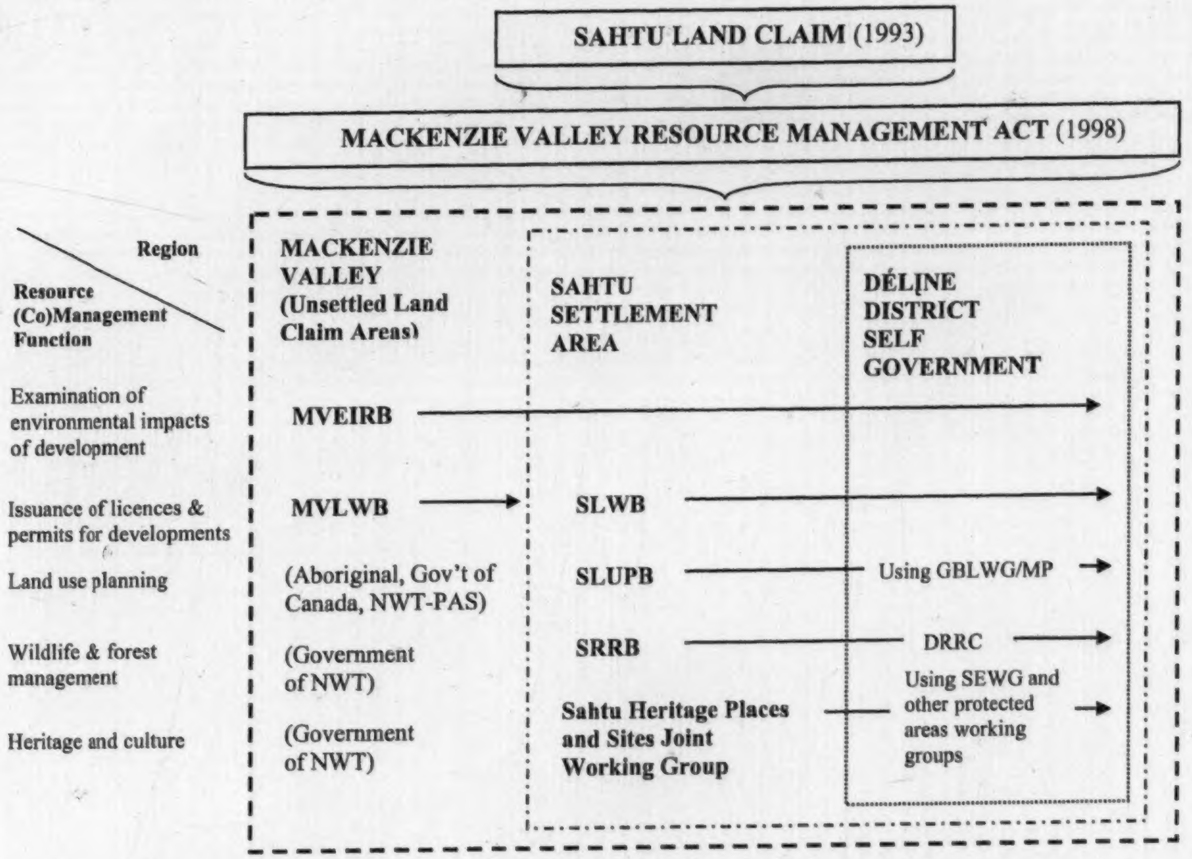
SAHTU LAND CLAIM (1993)
MACKENZIE VALLEY RESOURCE MANAGEMENT ACT (1998)
Region
Resource (Co)Management Function
MACKENZIE VALLEY (Unsettled Land Claim Areas)
SAHTU SETTLEMENT AREA
DÉLĮNE DISTRICT SELF GOVERNMENT
Examination of environmental impacts of development
MVEIRB
Issuance of licences & permits for developments
MVLWB
SLWB
Land use planning
(Aboriginal, Gov't of Canada, NWT-PAS)
SLUPB
Using GBLWG/MP
Wildlife & forest management
(Government of NWT)
SRRB
DRRC
Heritage and culture
(Government of NWT)
Sahtu Heritage Places and Sites Joint Working Group
Using SEWG and other protected areas working groups

Figure 4: Resource Co-management Organizations and Structure in the Mackenzie Valley.

The above example, while convoluted, aptly illustrates the variety of watershed management and governance forms that have evolved in response to political conditions, social values and the legal context of the watershed. It also exemplifies the increasing assertion of Aboriginal peoples' interests in participating in and managing water resources that are crucial to their traditional and changing way of life. The inclusion of water resources in aboriginal land claims emphasizes Aboriginal people's perceived vulnerability to externally imposed changes in the water regime on which their communities depend. Canadian federal water policy attempts to ensure aboriginal peoples' participation in water resource management programs and decisions involving instream and traditional uses (Canada 2005a, 2005b, Environment Canada 2002). The case of GBL watershed management planning exemplifies a hybrid approach to watershed management with novel solutions to social concerns and political contexts.

Great Bear Lake Watershed Management in Context

The signing of the Sahtu land claim in 1993 marked the beginning of a period of new governance in the Sahtu. Specifically, the land claim initiated a new political era for aboriginal lands management and set out processes for the negotiation of aboriginal self-government. It also established the priority of co-management institutions.[76] Specific to the issue of watershed management, the land claim also specified that an integrated system of land and water management should apply to the Mackenzie Valley (SDMLCA 1993: 25.1.1(a)). The completion of the *Mackenzie Valley Resource Management Act* (MVRMA) in 1998 formally established the co-management boards (see figure 4). The MVRMA required the co-managed Sahtu Land Use Planning Board (SLUPB) to develop and approve a Sahtu Land Use Plan (SLUP). The SLUP directs the sustainable utilization and protection of all resources in the Sahtu.[77]

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[76] Co-management boards were formally established through the *Mackenzie Valley Resource Management Act* (MVRMA) in 1998 creating an integrated co-management regime for land and waters in the Mackenzie Valley. This legislation sets out the requirement for Land Use Planning Boards in each of Gwich'in and Sahtu Settlement Areas (to develop land use plans and to ensure that future use of lands is carried out in conformity with those plans), a Mackenzie Valley Land and Water Board (to regulate the use of land and water, including the issuance of land use permits and water licenses), and an Environmental Impact Review Board for the entire Mackenzie Valley (as the main instrument for the examination of the environmental impact of proposed developments in the Mackenzie Valley) (MVRMA 1998).

With respect to watershed management, the land claim states that "water resources planning is an integral part of land use planning" and that "land use planning shall directly involve communities and designated Sahtu organizations" (SDMLCA 1993: 25.2.4.d; 25.2.4.d). However, while the land claim and MVRMA indirectly refer to the management of GBL and its watershed through regional planning tools, they do not provide guidance on mechanisms for watershed management. Even during land claim negotiations when Délı̨ne leadership expressed a desire to take formal responsibility and manage GBL, there was little action resulting from federal government indecision on legislative tools for watershed management. As a result, GBL watershed management up until 2002 took place through ad hoc advisory committees as specified in the land claim. This will be discussed further in subsequent sections.

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[77] Sahtu land use plan objectives relevant to watershed planning are: to recognize and encourage Sahtu livelihoods based on the cultural and economic relationship between the Sahtu people and the land; to encourage the self-sufficiency of the Sahtu and to enhance their ability to participate fully in all aspects of the economy; to provide Sahtu Dene the right to participate in decision making concerning the use, management and conservation of land, water and resources; to protect and conserve the wildlife and environment of the settlement area for present and future generations; and to integrate planning and management of wildlife and wildlife habitat with the planning and management of all types of land and water use in order to protect those habitats (SLUP 2007:9).

GREAT BEAR LAKE

Great Bear Lake, or *Sahtu* as it is known in the North Slavey dialect of the Dene language, is the largest lake entirely within Canada's borders and ninth largest in the world in terms of surface area (31,326 sq. km) as well as volume (GBLWG 2005b). Its massive watershed covers 13% of the land area of the Northwest Territories in which GBL surface waters comprise about 33% of the area of the watershed (MacDonald et al. 2004). The area of the GBL watershed is approximately 144,069 km^2 of which 90,267 km^2 (63%) lies within the Sahtu Region (see table 1). A number of aboriginal land claim regions, as well as a small proportion of Nunavut Territory, are found within the GBL watershed (see Figure 5). Graphically, the Délı̨ne District is approximately represented by the watershed boundary and so encompasses the entire NWT portion.

Table 1. Percentage and Area of Regions and Territories found in the GBL Watershed (Source: GBLWG 2005b)

Nunavut Territory:	2%		(2,876 km^2)
Northwest Territories:	98%		(141,193 km^2)
Dehcho Region:		4%	(6,401 km^2)
Tlicho Region:		31%	(44,525 km^2)
Sahtu Region:		**63%**	**(90,267 km^2)**
Watershed Total:	100%		(144,069 km^2)

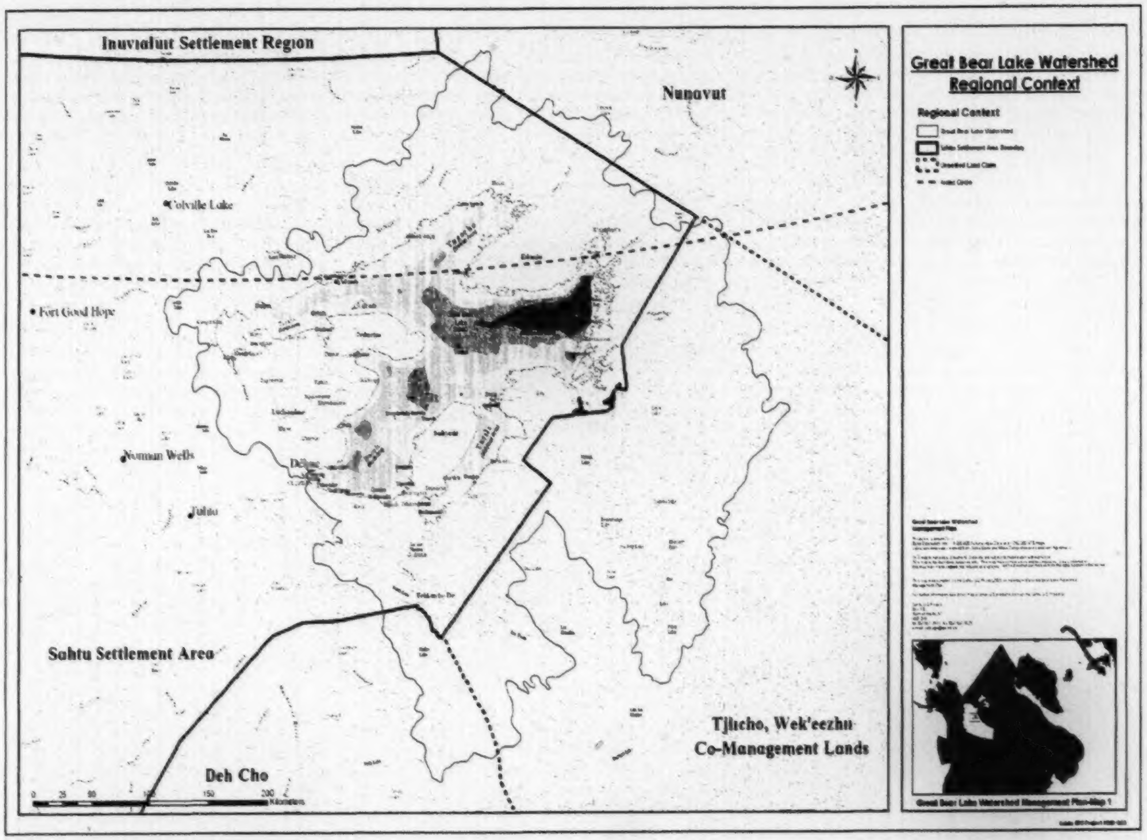
Inuvialuit Settlement Region
Nunavut
Colville Lake
Fort Good Hope
Norman Wells
Tulita
Sahtu Settlement Area
Deh Cho
Tłįcho, Wek'eezhii Co-Management Lands
0 25 50 100 150 200 Kilometers
Great Bear Lake Watershed Regional Context
Regional Context
Great Bear Lake Watershed Management Plan-Map 1

Figure 5. Map of Great Bear Lake and watershed (Used with permission: GNWT Sahtu GIS Project 2007)

Lionel Johnson, one of the first scientists to study the biophysical attributes of the lake, noted that GBL is generally poorly understood even though it is such a prominent geographic feature in Northern Canada. By far the most northerly of the world's major lakes and least productive in biologic terms, its maintenance depends on careful treatment of its surrounding watershed (Johnson 1975). Prior to the planning for GBL watershed management, this assessment of existing knowledge and concern was still considered accurate and germane. Great Bear Lake, bisected by the Arctic Circle, lies between two distinct physiographic regions: the Canadian Shield to the east and Interior Plains to the west. Biologist Jacques Sirois (2001), after traveling on the lake by canoe and later writing the first comprehensive state of knowledge report on Great Bear Lake, notes that it is likely the largest lake in the world to exist in a relatively pristine state. The lake's unique biological characteristics include low water temperatures, even in summer; high oxygen values; high transparency with scarce plankton and bottom fauna; extremely low biological productivity; relatively few fish species/simple food webs; and extremely high vulnerability to commercial fishery over-exploitation (Macdonald et al. 2004). These extreme biological characteristics make it the subject of resource management and ecological integrity concerns.

Great Bear Lake is the territory, homeland or "culture area" (Morris 1972:5) of the Sahtugot'ine, a self-described and ethnographically-confirmed distinct cultural group. Sedentarized over time, the location of the Sahtugot'ine settlement of Délįne was chosen for its access to the Great Bear River travel corridor, surrounding highly productive fisheries, and later access to historical fur trading posts, government services and Roman Catholic Church (Morris 1973). From the Sahtugot'ine perspective, the people of Great Bear Lake have lived around its shores since time immemorial (Hanks 1996a). Early in the 18th century when European traders began arriving at GBL a mix of Athapaskan speaking groups inhabited the shores along Great Bear Lake's large bays (Osgood 1932, Rushforth 1977, Gillespie 1981, Hanks 1996a). These Dene aboriginal groups consisted of what early ethnographers referred to as Dogrib, Mountain, Hare, Slavey, and occasionally Yellowknives and Gwich'in speaking peoples (Osgood 1932, Gillespie 1981).[78] The Sahtugot'ine were increasingly drawn into the fur trade and direct contact through provisioning of early exploration expeditions including the second Franklin expedition (1825-1827), and Dease and Simpson expeditions of 1937-1839 (Hanks 1996a). When trading posts were absent on Great Bear Lake the Sahtugot'ine traveled to Fort Norman (Tulita) on the Mackenzie River and, after 1851, to Fort Rae on the North Arm of Great Slave Lake (Hanks 1996a).[79] This peripatetic history increased interaction with Europeans and with many aboriginal and non-aboriginal cultures. It also indirectly hastened Sahtugot'ine sedentarization in Délı̨ne where social services and economic opportunities could be provided year round.

HISTORY OF GREAT BEAR LAKE MANAGEMENT

Before co-management made it into the governance policy lexicon in the Northwest

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[78] Most of these English names have been, or are in the process of being, replaced with their original Dene names. For example, the Sahtugot'ine people were previously known in anthropological literature as Bear Lake Indians, Bear Lakers, and Bear Lake People while the Tłı̨chǫ were known as Dogrib people.

[79] Walter Bayha suggested that this is a defining characteristic of the Sahtugot'ine: their wide travels from the southern Great Slave Lake region to east over the mountains into the present day Yukon thus leading to inter-tribal and European contact, marriage, and cultural exposure (personal communication, March 09, 2006). For an expanded timeline (since contact) historically situating the Sahtugot'ine, see Appendix A: Historical Events at Great Bear Lake.

Territories, a similar model was already being used in the management of GBL. The pre-land claim GBL *Committee* was established in 1986 as a cooperative management structure mandated to advise the federal government Department of Fisheries and Oceans (DFO) on fisheries management issues.[80] In 1994, after the completion of the land claim, the GBL Committee ceased to exist (Nesbitt 2003a). It was not until 1997 that the SRRB established the GBL *Advisory Committee* whose mandate, while broader than the previous committee's, still focused primarily on fisheries management issues. Retaining a co-management focus and with representatives and leadership from Délı̨ne, government and industry, the GBL Advisory Committee now reported to and provided advice to the SRRB on the management of GBL fisheries and licensing under the land claim (SRRB 2006). The further evolution of GBL management however, took a less organized and more spontaneous direction resulting from personal interactions between government and community leaders.

PROCESS TO DEVELOP THE GREAT BEAR LAKE MANAGEMENT FRAMEWORK

During the negotiations of the land claim prior to its signing in 1993, Raymond Taniton, then Grand Chief of the Sahtu and also Chief of the Délı̨ne First Nation, challenged federal negotiators to work together and develop a process for Sahtu Dene and Sahtugot'ine management of GBL.[81] Even though unsuccessful at the time, the prioritization of GBL management (and its formalization through the land claim) became a seed planted for community-federal partnership germination. A few years later federal government agency officials began to show interest in not only consolidating the state of knowledge on GBL but also in exploring innovative management structures for the lake and watershed. A DIAND official noted that

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[80] Little published information, outside of grey literature, exists on this committee. The GBL Committee was established to assess the health of Great Bear Lake fishing and make recommendations on total allowable fish harvest and allocation to users. Initial work of the committee focused on developing the Great Bear Lake Management Plan, reducing catch and possession limits for most species on the lake, and creating the use of Special Licenses (George Low, DFO, personal communication, October 30, 2006; see also SRRB 2006)

[81] Raymond Taniton, Personal Communication, April 27, 2006

> For me, this [management plan process] started with discussions I had with a biologist named Jacques Sirois. He had been paddling on Great Bear Lake, and was telling me how wonderful it was. I had him do a report about the lake, and we have the document 'What the White Man Knows about Great Bear Lake'. I spoke about this with Raymond Taniton [in 2000]. And then we went from there…." (David Livingstone in Hamre 2005:34).

Sirois' resulting 2001 literature review of the natural history on GBL was in no way a definitive or landmark work. What it did was unite often disparate concerns over socio-cultural well-being and ecosystem management issues and initiate a process to develop a community driven watershed management framework for GBL. A government official explained that it is an "environmental management framework…the first time we've actually been able to get ahead of the [socio-economic land use planning] curve."[82]

Very soon after discussing community based options for the management of GBL, the Director of Renewable Resources and Environment, DIAND drafted an issues paper on GBL which was presented to Raymond Taniton in 2001 (Livingstone 2001). Deliberations around management challenges raised in the issues paper moved slowly until October 2002 when a community workshop was held and the GBL Working Group (GBLWG) was formed with the vision statement: "Great Bear Lake must be kept clean and bountiful for all time" (Hamre 2002:9).[83] The workshop was not without conflict however. A lack of understanding and perceived lack of coordination among resource management organizations resulted in community claims of being "over-managed, over-governed, and over-controlled" (Hamre 2002:6). Moreover, co-operative management was not necessarily embraced by all workshop participants early in the process but rather was carefully and critically considered. Délı̨ne representatives saw government as part of the problem yet were appreciative that people from government were at the workshop and willing to work together (Hamre 2002). A key outcome from the workshop was the explicit decision that all existing groups would work cooperatively as the GBLWG. Meanwhile, the GBL Advisory Committee continued to meet at SRRB meetings but increasingly was amalgamated into GBL Working Group processes. It is important to note that the GBLWG process was initially seen as typical of standard planning steps (Hamre 2002) in that a vision was agreed to, principles and a management framework were developed, and a number of discussion papers on pertinent research and concerns were developed to describe the watershed from a number of perspectives (Nesbitt 2003a:11-12).

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[82] Interview transcript.

A draft management framework was presented in March 2003 resulting from a series of community workshops and meetings. In this framework the principles for management of GBL established the foundation of the management plan (Nesbitt

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[83] Therefore this was the third co-management-based group to address GBL management issues. Participants included representatives from: Délı̨ne Dene Band Council, DRRC, SRRB, SLUPB, DIAND, DFO and Canadian Parks and Wilderness Society – Northwest Territories Chapter (CPAWS-NWT) as well as legal counsel for the Délı̨ne Self-Government Office and several Sahtugot'ine elders and other community members.

2003a).[84] The GBL management framework also describes the roles and responsibilities of different organizations and agencies in the management of the watershed. Fundamentally, the framework

> envisages a long-term management relationship between Délı̨ne and the other management authorities on GBL. This relationship must be allowed to evolve, so that Délı̨ne can again play a stewardship role in the management of the lake and its watershed. This Management Framework — and any management plan or management contracts developed for GBL — must be adapted to changing circumstances, and to the developing role of a self-government administration in Délı̨ne. More specifically, Délı̨ne must be involved as an equal participant in any policy-level management board for GBL, and the day-to-day management of the lake/watershed should ultimately be coordinated and delivered from Délı̨ne (Nesbitt 2003a:9).

Because of land claim and northern legislative complexities a management framework for GBL had to take into account not only previous political structures resulting from the 1993 land claim but also ongoing political negotiations and resultant political structural changes. Figure 6 illustrates that the management framework generally originates in the land claim and MVRMA but more importantly has to actively incorporate regional co-management entities and mandates as well as local organizational objectives and goals. An example of the complexity in developing such a framework is the relationship between the regional SRRB and the local DRRC. Both organizations have mandates to manage the resources of GBL and surrounding lands but both also have distinct policies, responsibilities and interests for doing so based on their membership. At the same time the Délı̨ne Land Corporation, the local governing body arising from the land claim, is involved in social, cultural and economic decisions regarding land use and investments of land claim trust funds while also negotiating and implementing self-government for the Délįne District. The Land Corporation's role in developing the management framework and plan occurs through a number of related organizations including the DRRC, SSI, and Délįne Self Government Office (DSGO).[85] With the SLUP guiding the types and limits of future development in the watershed and region, the Délįne Land Corporation's input to the SLUP would thus influence the economic development opportunities they themselves initiate and participate in. This further creates greater complexity and potential conflicts.

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[84] The nine principles address: the type of relationships expected; natural and cultural conservation; ecological and cultural integrity; principles underlying commercial developments within the watershed; the role of Délı̨ne in any conservation and development activities; the use of traditional knowledge and western science in an adaptive approach; fisheries management that is proactive in nature and precautionary in approach; consideration of protection measures for areas of cultural or spiritual value; and the role of communication.

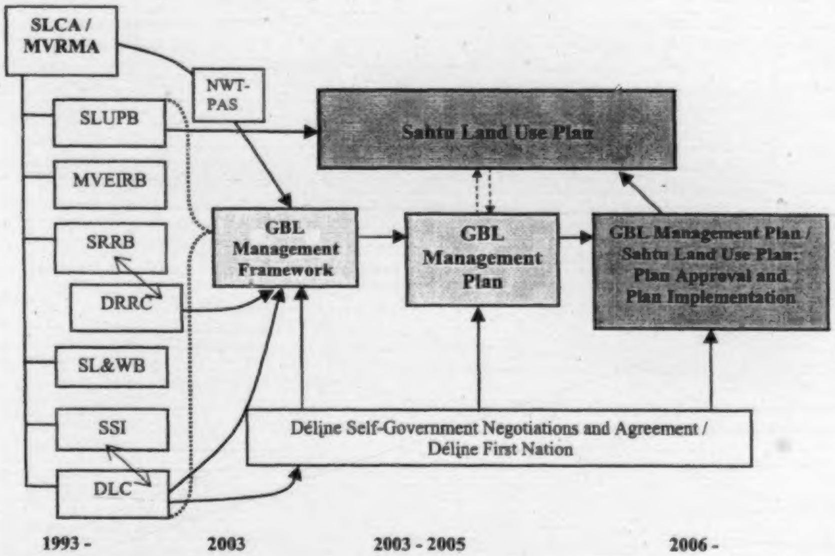
SLCA / MVRMA
NWT-PAS
SLUPB
Sahtu Land Use Plan
MVEIRB
SRRB
GBL Management Framework
GBL Management Plan
GBL Management Plan / Sahtu Land Use Plan: Plan Approval and Plan Implementation
DRRC
SL&WB
SSI
Délįne Self-Government Negotiations and Agreement / Délįne First Nation
DLC
1993 -
2003
2003 - 2005
2006 -

Figure 6: Great Bear Lake Management Plan Process Flowchart (Modified from GBLWG 2005b)

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[85] The Sahtu Secretariat Incorporated is the land management arm of the Sahtu Dene Council (the political body of the Sahtu Dene aboriginal people). Under the land claim, SSI works with the community land corporations to administer the land holdings of the Sahtu Dene and Métis.

Soon after the initiation of the GBLWG, a technical working group (TWG) was formed to bring together and further develop ideas from the broader working group on technical issues that required additional expertise.[86] The TWG consisted of specific community representatives, and scientists and resource managers from resource management and research organizations and governmental departments. While the TWG met less frequently than the GBLWG, most of their work was undertaken within the member's organizations and on their own time as part of their commitments to the GBLWG. The GBLWG (a more inclusive group with membership primarily from Délįne but including TWG members) met more frequently to study and review the work of the TWG.

GREAT BEAR LAKE MANAGEMENT PLAN

A number of significant events took place in 2003 that affected the development of the management plan. In November the draft Sahtu Land Use Plan was rejected by DIAND, who requested it be fundamentally redrafted with more detailed land use guidance. During this perceived window of opportunity government officials proposed the submission of the GBL management plan (see Figure 7) as a sub-regional land use plan and component of the SLUP. In Délįne however, a new concern was raised by local leaders regarding the perceived lack of community organization involvement in GBLMP workshops and activities. The result of these community concerns was that a re-orientation of the working groups and objectives took place. This re-orientation altered the process from that of a straightforward planning exercise to one that was more community and culturally-informed. It was during this shift to a community-led process that attention on the GBL heart of the lake or "waterheart" was initiated by Délı̨ne elders. Stories of ancient and traditional lake management were woven into the management plan's structure and land and water use designations as a direct result of their influence in meetings and workshops. The stories and concepts of Dene understanding of the lake explained the necessity for a management plan from a perspective that outlined traditional management relationships and responsibilities for the land. From a Dene perspective the management plan and SLUP were seen as an "opportunity to bring Dene traditional laws and values into the [Western] system of laws" (GBLWG 2005b:5). This approach, specifically the Water Heart, is examined in detail in Chapter six.

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[86] For example, some of these issues included aquatic and terrestrial baseline inventory data collection, calculation of trophy lake trout and arctic grayling fish size and weight limits based on GBL biological productivity, spatial mapping requirements and tools for planning, costing and yearly planning for research programs based on government funding structures, and cultural research needs assessments and costing.

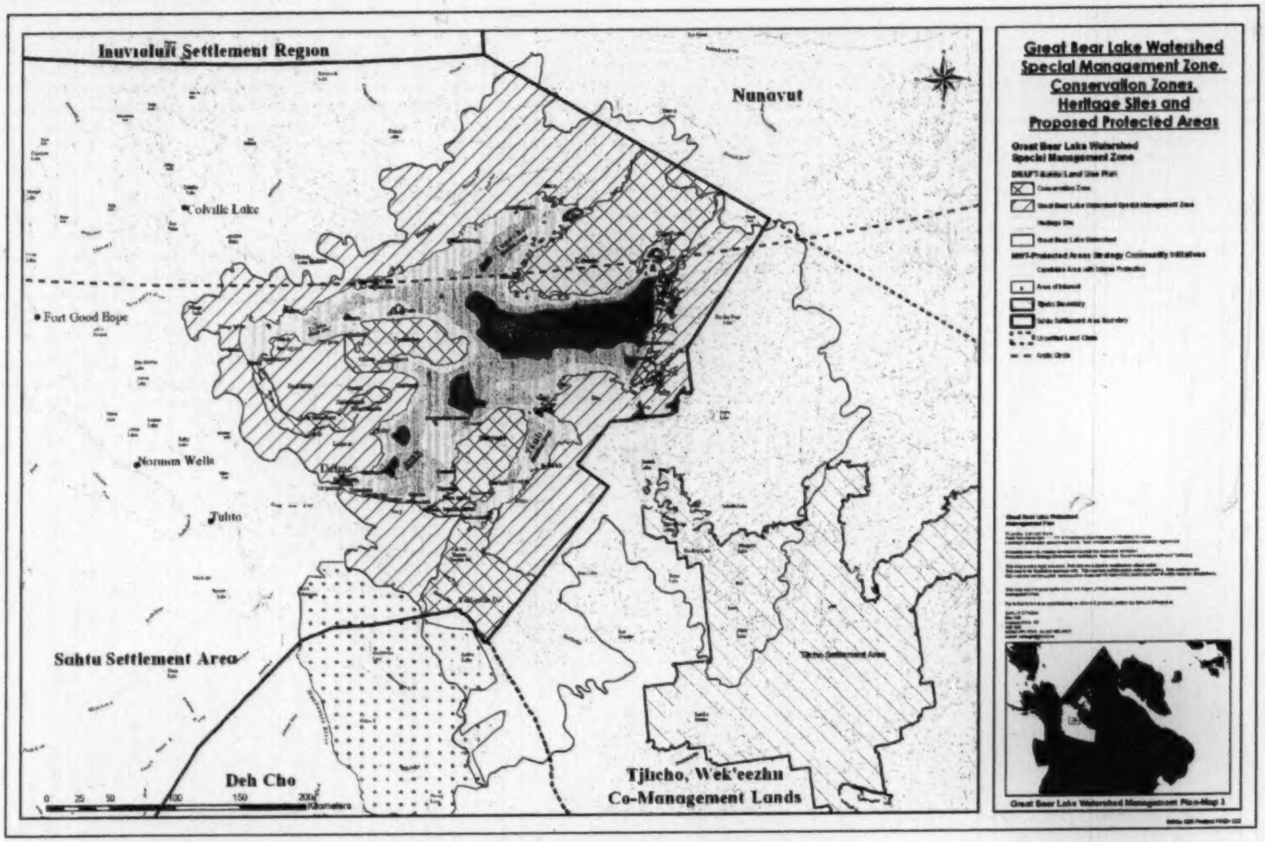
Inuvialuit Settlement Region
Nunavut
Colville Lake
Fort Good Hope
Norman Wells
Tulita
Déline
Sahtu Settlement Area
Deh Cho
Tłıcho, Wek'eezhu
Co-Management Lands
0 25 50 100 150 200 Kilometers
Great Bear Lake Watershed Special Management Zone, Conservation Zones, Heritage Sites and Proposed Protected Areas
Great Bear Lake Watershed Special Management Zone
DRAFT Sahtu Land Use Plan
Conservation Zone
Great Bear Lake Watershed Special Management Zone
Heritage Site
Great Bear Lake Watershed
NWT-Protected Areas Strategy Community Initiatives
Candidate Area with Interim Protection
Area of Interest
Tlicho Boundary
Sahtu Settlement Area Boundary
Unsettled Land Claim
Arctic Circle
Great Bear Lake Watershed Management Plan-Map 1

Figure 7: Map of Great Bear Lake Watershed Management Plan Zones
(Used with permission: GNWT Sahtu GIS Project 2007)

Within a culturally-oriented land use planning format, conventional planning and land use zone designations were utilized for guidance to resource development and management. The intent was to create a plan that was acceptable to local needs, regulatory and licensing agencies, and development proponents. In the management plan land and water use zones are delineated between Conservation Zones and Protected Areas, and Special Management Zones (SMZ) containing designated Heritage Zones.[87] Conservation Zones restrict industrial resource development while SMZs allow development with specific protection and development requirements. Unlike the rest of the SLUP which incorporates Multiple Use Zones, the entire GBL watershed is a SMZ with the exception of Conservation Zones and Protected Areas. A Special Management Zone designation only allows activities which are consistent with the maintenance of cultural and ecological integrity, and follow the policies, conditions, and prohibitions set out in the management plan. The management plan also allows for the establishment of Heritage Zones within the SMZs because of the ecological, cultural and socio-economic importance to Sahtugot'ine and Sahtu Dene heritage.[88] Conservation Zones and Protected Areas are referred to in the plan as *Neh Karila K'ets'Edi*; a North Slavey term meaning 'lands set aside: we're protecting them' (GBLWG 2005b:64). Protected Areas have legislative protection or they are currently being advanced through the NWT Protected Areas Strategy for long term and permanent legislated protection. Conservation Zones in contrast, are areas that have important cultural, historic, traditional and/or ecological values that need a higher level of protection than that provided by the SMZ but rarely the permanent protection afforded Protected Areas. Chapter five explores this level of protection within a discussion of cultural landscapes.

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[87] Multiple Use Zones are the third category found in the SLUP. These areas are open for development subject to requirements established by regulatory agencies.

[88] Heritage values are also protected throughout the GBL watershed by Mackenzie Valley Land Use Regulations and the Northwest Territories Archaeological Sites Regulations. Activities in Heritage Zones are subject to a higher level of inspection toward compliance with these Regulations (GBLWG 2005b:59).

In January 2004 a Délı̨ne workshop revised the management framework which led to the first draft of "The 'Water Heart': A Management Plan for Great Bear Lake and Its Watershed". Over the course of the following year and a half, a series of community workshops, elders meetings, and Délı̨ne leadership meetings resulted in a complete draft management plan including the supporting "Ecological and Cultural Research and Monitoring Plan for Great Bear Lake and Its Watershed" (GBLTWG 2005). Representatives of the community of Délı̨ne and members of the GBL working group endorsed the management plan. Soon after in May 2005 the GBL working group recommended that the SLUPB immediately forward the GBL management plan portion of the SLUP to aboriginal, territorial and federal government leaders for their approval as required by the *Mackenzie Valley Resource Management Act* (MVRMA). A sense of urgency for approval of the management plan was evident as people were concerned about the impacts of increasing resource exploration in the GBL watershed. This urgency is made clear in the final draft of the management plan emphasizing that

> mineral and oil and gas exploration and development have accelerated in the GBL watershed in 2004 and 2005, and mineral and oil and gas rights acquired pursuant to existing legislation limit the options available to this Management Plan and to the Sahtu Land Use Plan (GBLWG 2005b 4).

Increased exploration for mineral and petroleum resources combined with outdated federal mining legislation (which was powerful in grandfathering development from new land use planning requirements) spurred members of working group, the community, co-management boards, ENGOs, and even government officials to press for the completion of the land use plan. The expectation was that the GBL management plan would, once approved, have legislated power through the SLUP recognized within the land claim. The SLUP is, at the time of this writing, in the process of comprehensive community, regional, territorial and federal review before formal legislation can take place (see Figure 8).

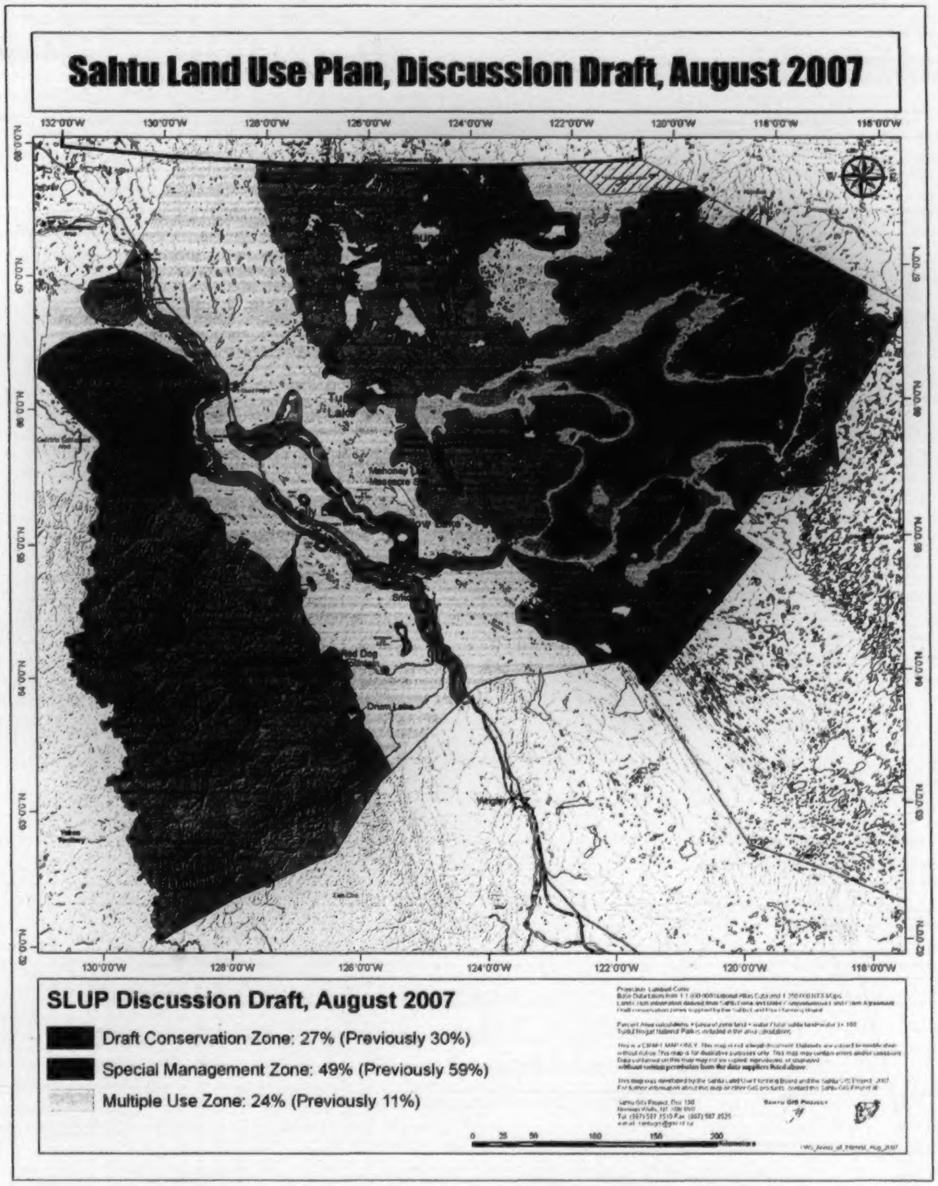
Sahtu Land Use Plan, Discussion Draft, August 2007
132°0'0"W
130°0'0"W
128°0'0"W
126°0'0"W
124°0'0"W
122°0'0"W
120°0'0"W
118°0'0"W
116°0'0"W
68°0'0"N
67°0'0"N
66°0'0"N
65°0'0"N
64°0'0"N
63°0'0"N
62°0'0"N
SLUP Discussion Draft, August 2007
Draft Conservation Zone: 27% (Previously 30%)
Special Management Zone: 49% (Previously 59%)
Multiple Use Zone: 24% (Previously 11%)
0
25
50
100
150
200

Figure 8: Draft 2007 Sahtu Land Use Plan Map Including GBLMP
(Used with permission: Sahtu Land Use Planning Board 2007)

CONCLUSION

The preceding discussion of GBL watershed management illustrates a significant shift in planning in the Canadian North. The development of the management plan appears to have taken a relatively short period of time to complete in terms of planning processes (October 2002 to May 2005). In fact, it is the evolutionary outcome of early lake management organizations and much discussion and pre-planning between government and community leaders dating back to the late 1980s prior to land claim negotiations that allowed the process to move forward relatively easily. Moreover, the planning process required commitments and infusions of a variety of resources for the documentation, prioritization and assessment of local needs that are not only state-serving (Stevenson and Webb 2003) but which may provide benefits well beyond the submission date deadlines to the SLUPB. As one government agency official reflected:

> It was an expensive process you know, and we didn't do it just to buy time or anything like that. We did it with the full intention of implementing that plan. How we're going to do that? Well…[the local DRRC] is part of the mechanism for making sure the government does what it's supposed to do and the community does what it's supposed to do.[89]

The above quote reflects the commitment made by DIAND to not only be a part of the early planning, but also to help local resource management organizations assume greater management and oversight responsibilities. The implicit recognition is that local communities are increasingly empowered in influencing industrial development; they should also be empowered in deciding what type of balance development should take with regards to conservation.

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[89] Interview transcript.

While success in developing the management plan as a watershed-based land use plan was attained (and potentially legislated through a regional land use plan), further work is needed in the implementation of the plan and long term research and monitoring of GBL, an enormous task ahead of the community. However, the support as well as the relational development of governmental agencies and non-governmental organizations has proven to be valuable for the long term management of GBL. Indeed the final version of the management plan notes that there exists "different perceptions, cultural values and systems of knowledge regarding GBL. In the final analysis, however, these differences can co-exist: they are complementary to each other…" (GBLWG 2005b:6).

Chapter Five:
The Making of Aboriginal Cultural Landscapes

> In this changing world, we need a fresh and innovative approach to protected areas and their role in broader conservation and development agendas. This approach demands maintenance and enhancement of our core conservation goals, equitably integrating them with the interests of all affected people. In this way the synergy between conservation, the maintenance of life support systems and sustainable development is forged….We see protected areas as providers of benefits beyond boundaries – beyond their boundaries on a map, beyond the boundaries of nation-states, across societies, genders and generations (Durban Accord 2003).

CONSERVATION AND CULTURE: AN INTRODUCTION

As the above quote indicates, a new era of conservation is required where adaptive strategies are required to respond to local contexts taking into account natural, social and cultural factors. Conservation is a social endeavour in that it is initiated and designed by people with the intention to influence human behaviour to achieve a broad array of environmental and natural resource management goals. Yet inasmuch as it is social, conservation of social and cultural landscapes was in the past infrequently associated with discussion of protected areas.[90] The terms conservation and landscape were more typically found in biophysical sciences and planning. Within current conservation thinking however, focus has recently shifted to consider the place of people in ecosystems (Agrawal and Gibson 1999, Berkes 2004). Included within this conservation shift is the consideration of the place of Aboriginal peoples in protected areas and landscape studies. A socio-historical perspective on conservation indicates that Aboriginal peoples have only been involved from the sidelines or even excluded altogether (Wells and McShane 2004). This imbalance has only recently begun to swing toward a more inclusive position in protected areas practice. Specifically, Aboriginal peoples are being included in the design and management of landscape-based protected areas that recognize natural and cultural considerations in planning (Leroux et al. 2007).

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[90] The concepts of conservation and preservation have in the past often been seen as different entities, sometimes even mutually exclusive of one another. Where conservation is often associated with the sustainable use of natural resources, preservation is often associated with attempts to maintain natural areas that are untouched by humans in their present condition. Many examples, including the work of anthropologist Henry Lewis (1982) on anthropogenic burning practices by Native Americans and Aboriginal peoples of California and northern Alberta, have shown this divide to be false and separation to be problematic for NRM.

The title of this chapter implies that cultural landscapes are made in many different ways. While cultural landscapes are developed over time and space, they are also an inherently political construction. Policies that attempt to overcome the divide between nature and culture in conservation have their roots in the *Convention on the Protection of the World Cultural and Natural Heritage* adopted by the General Conference of the United Nations Educational, Scientific and Cultural Organization (UNESCO) in 1972 and 1992. It was in 1992 that the World Heritage Convention became the first international legal instrument to identify, protect, conserve and transmit to future generations cultural landscapes of outstanding universal value. This international policy considers heritage as both cultural and natural, and focuses on the ways people interact with nature, in particular the need to preserve the balance between the two. While much conservation policy takes place at the international and national levels, the value of community-based conservation practices are important as illustrations of the effectiveness, as well as the influence, of practices that the policies advocate (Brosius and Russell 2003). An examination of the innovative practice of community driven cultural landscape protection in northern Canada therefore increases understanding of the complexity of developing conservation practices. How cultural and natural resource management is understood is also crucial in ensuring appropriate national and international designations. An initial step in such a process is a clarified local level understanding of cultural landscapes following by transmission of its meaning outward, applied to the development of conservation policies at national levels (Dailoo and Pannekoek 2008).

This chapter explores the concept of cultural landscapes within the socio-environmental and political milieu of northern aboriginal land claims, the NWT Protected Areas Strategy, and the National Historic Sites program of Parks Canada. The concept of aboriginal cultural landscapes is a culturally intuitive but politically odd fit within conservation practice. In order to better understand this approach, I begin with the historicization of cultural landscapes examining its new-found place in conservation programming. The integration of cultural landscape classification and protection in northern Canadian protected areas strategic planning is examined by using the case study of the two peninsulas, Sahoyúé and ʔehdacho that have been put forward by the community of Délı̨ne for formal protection as aboriginal cultural landscapes.[91] I explore how a conservation effort, driven by a community, influenced conservation policy and practices in larger social and political arenas. The intent of this chapter is to provide the institutional context for the following two chapters on practical understanding and application of shared understanding in resource management.

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[91] The two peninsulas Sahoyúé and ʔehdacho will be presented as a hyphenated "Sahoyúé-ʔehdacho" to designate their formal consideration as a dual protected area and nationally recognized historic site. Where I refer to the actual peninsulas I will use Sahoyúé *and* ʔehdacho or by their individual names.

CULTURAL LANDSCAPES

The German-educated American cultural geographer Carl Sauer is generally credited with bringing the concept of cultural landscapes to the social sciences. Sauer's (1963) perspective of cultural landscape specified the role of human agency in shaping natural environments. In a scientific yet poetic way, he observed that a cultural landscape is fashioned from a natural landscape by a culture group: "culture is the agent, the natural area is the medium. The cultural landscape, the result" (P. 343). Cultural landscapes are perceived as socially created from the natural environment by a society in a specific place and time, in which that sense of time and social continuity are important aspects for identifying heritage values (Makhzoumi 2002, Andrews 2004). Cultural geographers and cultural archaeologists have studied cultural landscapes for well over a century. Yet it is only in the last decade that their work has permeated the field of heritage conservation (Buggey 1999).[92]

In addition to Sauer's early observations on cultural landscapes, a variety of definitions have emerged from the social sciences to better illuminate a somewhat unformulated concept. The most commonly used definition is from UNESCO's World Heritage Committee:

> cultural landscapes represent the combined works of nature and of man. They are illustrative of the evolution of human society and settlement over time, under the influence of physical constraints and/or opportunities presented by the natural environment and of successive

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[92] Heritage conservation encompasses the identification, protection and promotion of things that are important in a culture and history. Inherent in the connection to people's historical roots is a sense of place. Heritage includes tangible things found in the built environment (for example, an historical building), artifacts of moveable cultural property (for example, an historical piece of equipment), and as well parts of the natural environment (for example, a heritage trail). Heritage conservation also includes the intangible encompassing customs, language, dialect, songs and legends (Parks Canada 2003).

> social, economic and cultural forces, both external and internal (UNESCO 1996 [2005]:83).

In the past, Parks Canada, in its *Guiding Principles and Operational Policy* document, simply defined a cultural landscape as "any geographical area that has been modified, influenced, or given special cultural meaning by people" (Parks Canada 1994).[93] Expanding on the geographer Meinig's (1979) observation of the significance of values and perceptions in landscape perspectives, Davidson-Hunt (2003:22) noted that "the cultural landscape of one society is not always visible to members of another society due to differing perceptions, values and political interests." Finally, and most elegantly, Lowenthal defined the cultural landscape as the "tapestry in which all other artifacts are embedded (and) which gives them their sense of place" (Lowenthal as cited in Lennon 1997:8). The introduction of the idea that people, current or past, are associated with a landscape through sense of place is closely related to aboriginal conceptions and interpretations of cultural landscapes.

ABORIGINAL CULTURAL LANDSCAPES

The IUCN World Conservation Union and UNESCO World Heritage Committee have developed landscape designations through their Protected Areas Designations and List of Cultural Landscapes, respectively. Both provide categories with which to generally consider the concept of landscape protection, focus on cultural landscapes, or specifically consider aboriginal cultural landscapes. However, their categories also illustrate that heritage values are often connected to the material artifacts and modifications of the natural landscape. Problems exist in trying to understand landscapes within programs that focus on heritage from a materialist predisposition. Designation of a cultural landscape based on the heritage values of material artifacts has the potential to freeze it in time and space (Prosper 2007). The management regimes that follow a material-based designations often present a static picture and discourage seeing change as part of the dynamic landscape from which that object originated (Horton 2004). The World Heritage Committee's designation of 'Associative Cultural Landscapes' however, challenges materialist predispositions in heritage programs. It acknowledges cultural landscapes in which the visible cultural imprint on the land is absent, minimal, or possibly transient, as found in many aboriginal traditional landscapes. With culture associated with the land, one cannot but focus on the landscape itself, which inherently is continually changing.

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[93] In the conservation literature the word "parks" is often used to refer to formally and permanently protected areas. There are however, differences between cultural landscapes, protected areas, national parks, and national historic sites among others. The key to these differences is the level of protection afforded the site (and legislation used), and the reason for its protection. These differences also tacitly incorporate different epistemological underpinnings that may be difficult to include in formal classification systems.

The World Heritage Committee of UNESCO determined that the term 'cultural landscape' best conveys the diversity of expressions of the relationship between the socio-cultural and natural (UNESCO 1996 [2005]:84). As such, many countries with well-developed protected areas programs either follow or acknowledge the influence of the UNESCO cultural landscape categories when identifying cultural landscapes of national historic significance.[94] Prior to the late 1990s there was little experience in Canada with use of a formal cultural landscape designations, and few cultural landscapes associated with Aboriginal peoples were formally protected (Swinnerton and Buggey 2004). Aboriginal cultural landscapes considered by Parks

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[94] For example, the USA has similar categories (Birnbaum 1994) while Canada follows the World Heritage Committee's general approach to classifying cultural landscapes (Buggey 2004). Australia also recognizes its categories relative to World Heritage Committee designations (Lennon 1997).

Canada correspond to the Associative Cultural Landscape designation (Buggey 2004).[95] This designation is approached primarily from the enduring relationship between culture and place that is comprised of and sustained through practice in time and space. In Canada, an aboriginal cultural landscape has been formally recognized as

> a place valued by an Aboriginal group (or groups) because of their long and complex relationship with the land. It expresses their unity with the natural and spiritual environment. It embodies their traditional knowledge of spirits, places, land uses and ecology. Material remains of the association may be prominent, but will often be minimal or absent (Buggey 1999:27, see also Buggey 2004).[96]

The idea of aboriginal cultural landscapes, while being relatively new in conservation literature, has been formalized in practice for over 15 years around the world. Challenges persist in applying the concept despite the World Heritage Committee's concept development, subsequent advancement of operational guidelines, increased literature and designations around the world, and documentation of related oral traditions (Krupnik et al. 2004). One key organizational challenge is how best to deal with cultural landscapes and aboriginal traditions from the perspective of a parks management system (Neufeld 2007). More pointedly, how can a bureaucratically administered NRM system that is historically difficult to maneuver within, create flexible and adaptive institutional arrangements? A discussion of Parks Canada's efforts to change its management policy is required here to provide the context for following chapters and foreshadow the challenging commensurabilities of practical understanding of NRM with governmental policies.

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[95] This is in contrast to the 1999 NWT PAS protected area designations which follow the lead of IUCN World Conservation Union. The reason is that the PAS is integral to a land use planning process incorporating protection of both special natural and cultural values. The most relevant designation here is the IUCN 'Category V Protected Landscapes and Seascapes'

[96] Historian Susan Buggey authored a paper commissioned by the HSMBC that was subsequently and still currently used for a Parks Canada online discussion paper (http://parcscanada.pch.gc.ca/docs/r/pca-acl/index_e.asp). At the same time, it was incorporated into HSMBC cultural landscape guidelines (HSMBC 1999[2004]). The paper has recently been modified and included in a volume on northern ethnographic cultural landscapes (Buggey 2004).

Canadian parks have been designed and managed by a number of parties, with differing interests and influence over the years (see figure 9). It is suggested that there is a current shift toward an 'Aboriginal period' in conservation practice: that is, the rising influence of First Nations in park designation, design and management (Dearden and Berg 1993). Heightened environmental concern and grass-roots movements of the 1970s and early 1980s paved the way for environmental organizations' sustained involvement in the general management of parks. A transformation in how parks are envisioned and developed is occurring increasingly through aboriginal treaty negotiations and comprehensive land claims (Peepre and Dearden 2002). The North is an excellent example of the increasing influence of aboriginal groups in conservation programming.

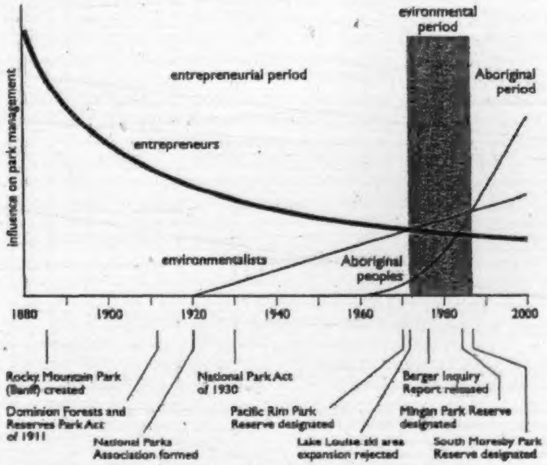

Figure 9: External Groups Influence on Park Management over Time (Source: Dearden and Berg 1993)

Parks Canada policies relevant to the North are changing and with significance to the management of protected areas in aboriginal land claim areas. During the early part of the Aboriginal period of parks influence, deficit reduction within Parks Canada occurred during a shift in policy. Previous goals of enhancing visitor experience while keeping the parks unimpaired for future generations shifted to placing greater stress upon protection of ecological integrity. The combination of reduced funding and shifting policies allowed for a re-definition of government in terms of what governments do and how they do it; as "new public management" (Brown-John 2006:13, see also Lovelock 2002). Budgets were cut and national parks were left with little funding for expansion and maintenance following past management practices. "Taxpayers became clients and conundrums evolved: management replaced policy; performance replaced process, and efficiency replaced equity" (Brown-John 2006:13). Conventional principles that previously guided parks policy and administration were in effect shifted and distorted. What was originally an 'outreach network' attempting to thinly engage communities in parks programs shifted to a formalized 'collaborative action network' initiated through formal agreements (Brown-John 2006).

The engagement by Parks Canada with aboriginal groups takes collaborative management into a distinct dimension. One the one hand, it indirectly develops new policies for meaningfully and respectfully incorporating aboriginal cultural and social narratives within a culturally entrenched parks system. On the other hand it forces a deep exploration of people's understanding and use of new forms of governance of protected heritage areas (Neufeld 2007, Buggey 2004). The concept of aboriginal cultural landscapes has opened the door for a new way of understanding social practices, place and history through the consideration of intangibles such as knowledge and skills, faith practices and beliefs originating in human and non-human relations, and place (Neufeld 2007). Less clear however is the way potentially different perceptions of resource and conservation management by aboriginal groups and state are addressed in the integration of the new concept of aboriginal cultural landscapes with the older biological and ahistorical construct of ecological integrity. The next sections examine how the aboriginal cultural landscape of Sahoyúé-ʔehdacho was perceived, promoted, and formally protected for its cultural heritage.

ABORIGINAL CULTURAL LANDSCAPES IN THE NORTHWEST TERRITORIES

> Now people have concentrated so much on the biophysical - the environmental side and everything else that people have almost forgot: what about the people? What about the people *that's* gonna affect?[97]

Cultural landscape research and management in the NWT has a long history located in resource conflicts and environmental assessment of large scale industrial resource development (Andrews 2004). As previously mentioned, land claim agreements and self-government negotiations increasingly contain provisions for the conservation of cultural values. These provisions can require the development of land use plans as well as recommend the development of heritage conservation programs that address cultural landscape management issues. For example, one of the unique features of the Sahtu land claim was its direction on a broad number of heritage issues in the Sahtu region, one being aboriginal cultural landscapes (Andrews 2004). Section 26.4 of the land claim laid out the requirements for the Sahtu Heritage Places and Sites Joint Working Group to make recommendations on options for commemoration and protection of heritage sites. The report of the Working Group, "Rakekée Gok'é Godi: Places We Take Care Of", was completed in 2000 and submitted to Sahtu aboriginal leadership and to territorial and federal ministers. The working group proposed 40 heritage sites of significance to communities, one of which was Sahoyúé-?ehdacho. A key recommendation was for the "governments of Canada and the Northwest Territories, in consultation with communities and Aboriginal groups to develop and pass legislation that will commemorate and protect cultural landscapes" (T'Seleie et al. 2000:7) in which the "the community should be involved at all levels in developing the land management regime" (P. 34). The report is valuable not only as a guide for resource development projects with regards to avoidance of cultural sites and support of land use plans. It was also incorporated into the protected areas planning process. It was at this same time that the Northwest Territories Protected Areas Strategy (NWT-PAS) was being developed which would significantly put these recommendations into the practice of protection of aboriginal cultural landscapes.

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[97] Interview transcript; original emphasis.

The protection of aboriginal cultural landscapes however, is constrained by a number of key factors. The following section examines the socio-political context and constraining conditions in which the proposed aboriginal cultural landscape of Sahoyúé-?ehdacho has developed. The point of departure for this discussion is the conventional method through which culture has been protected in Canada, National Historic Sites.

NATIONAL HISTORIC SITES AND ABORIGINAL CULTURAL LANDSCAPES

To date, Parks Canada does not have an established federal policy or program in place within which aboriginal cultural landscapes can comfortably reside. Parks Canada supported and followed international conventions yet these do not provide a level of protection acceptable to local communities. The NWT-PAS is only a strategy for pursuing protection. Historically, the only designation that could provide some level of cultural protection was that of National Historic Sites (NHS). National Historic Sites in Canada are places of historical recognition and commemoration of nationally significant places, persons and events.[98] Parks Canada's mandate is fundamentally conservation-based with a role as guardians of the National Parks, the National Historic Sites, and the National Marine Conservation Areas of Canada (Parks Canada 2002). For National Historic Sites, their role begins with the Historic Sites and Monuments Board of Canada (HSMBC), the statutory advisory board to the federal Minister of the Environment on the commemoration of nationally significant aspects of Canada's history.

Historically, the HSMBC has been instrumental in the designation of a number of places associated with aboriginal culture as National Historic Sites. However it was a key HSMBC recommendation in 1990 that set the stage for increased understanding of intangibility and oral histories in considering aboriginal cultural landscapes as National Historic Sites:

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[98] There is no single model of a NHS in Canada. Rather, a spectrum of over 900 nationally significant historic places encompass urban, rural and so-called wilderness areas ranging considerably in size and scale covering archaeological sites, battlefields, structures or districts, or sacred places (Parks Canada Agency 2005).

> Sites of spiritual and/or cultural importance to Native peoples, generally should be considered to be eligible for designation as national historic sites even when no tangible cultural resources exist, providing that there is evidence, garnered through oral history, or otherwise, that such sites are indeed seen to have special meaning to the culture in question and the sites themselves are fixed in space (HSMBC Minutes February 1990 as cited in Buggey 2004:23).

The HSMBC thus began to advance a process of commemorating aboriginal culture and history based on a new framework. The approach is highlighted by a demonstration of continuity of culture and history in place, the connection between the environment and spirituality, sacredness of specific sites, and visual key of oral traditions.[99] The establishment of aboriginal cultural landscapes requires that:

> 1) The long associated aboriginal group or groups have participated in the identification of the place and its significance, concur in the selection of the place, and support designation
>
> 2) Spiritual, cultural, economic, social and environmental aspects of the group's association with the identified place, including continuity and traditions, illustrate its historical significance
>
> 3) The interrelated cultural and natural attributes of the identified place make it a significant cultural landscape
>
> 4) The cultural and natural attributes that embody the significance of the place are identified through traditional knowledge of the associated aboriginal group(s)
>
> 5) The cultural and natural attributes that embody the significance of the place may be additionally comprehended by results of academic scholarship. (HSMBC 1999 [2004])

Within Parks Canada this new approach of involving associated communities in National Historic Sites emphasizes the central role of local community organizations and people, in particular, Aboriginal elders and traditional knowledge (TK).[100] For example, the recent Round Tables on Parks Canada stressed the "furthering engagement of Canada's Aboriginal people as *partners* to tell *their stories and teachings* about Canada's special places" (Parks Canada Agency 2005:5, my emphasis). Aboriginal cosmologies and northern landscapes are inherently linked. Perceiving the land as a place and source of cultural resources including intangible values and identity, many Aboriginal peoples see themselves as an integral part of the living landscape whose social and cultural identity is formed therein (Buggey 1999). To illustrate, for the Dene of the Northwest Territories the mythological cultural hero Yamoria and the geographic landscape feature of Bear Rock (at the confluence of the Great Bear River and the Mackenzie River) are intertwined both narratively and physically as many of the Yamoria-based stories lead to and conclude at this sacred place (Blondin 1997, Buggey 2004). Published Dene oral narrative collections such as George Blondin's *When the World Was New* (1990) and *Trails of the Spirit* (2006) demonstrate that many Aboriginal people perceive landscape in spiritual and symbolic rather than simply material expressions. These stories centre Great Bear Lake and the cultural landscape of Sahoyúé-ʔehdacho in Sahtugot'ine explanations of spiritual and material connection to the land.

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[99] The identification by the Sahtugot'ine of the cultural significance of the traditional fishery at Délı̨ne to their occupation of the region, and Sahtugot'ine assistance to Sir John Franklin's Northwest Passage expeditions contributing to the emergence of the Sahtugot'ine as a distinct cultural group is illustrative of this shift (Hanks 1996b, Buggey 1999, 2004).

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[100] In 1991 the Government of the NWT's Traditional Knowledge Working Group defined TK as: knowledge that derives from, or is rooted in the traditional was of life of aboriginal people. Traditional knowledge is accumulated knowledge and understanding of the human place in relation to the universe. This encompasses spiritual relationships, relationships with the natural environment and the use of natural resources, relationships between people; and is reflected in language, social organization, values, institutions and laws (GNWT 1991). This definition of TK was later adopted as GNWT policy (GNWT 1993).

SAHOYÚÉ-ʔEHDACHO CULTURAL LANDSCAPE

Sahoyúé and ʔehdacho are two major peninsulas facing one another dividing the western arm of Great Bear Lake (see figure 10). These areas are identified and listed as Heritage Places and Sites by Sahtu Dene communities in the land claim, and commemorated as National Historic Sites. In the North Slavey dialect of the Dene language, Sahoyúé means "belonging to the bear", and ʔehdacho refers to "big point" (SEWG 2007:3). Untouched by industrial development, these landscapes figure prominently in both the oral traditions of the Sahtu Dene and their traditional ways of life. Seen this way, stories are how the land is instilled with cultural meaning. Paul Baton, a prominent Dél̨ine elder, explained: "…even though there were no maps, the stories made maps for the people" (Hanks and Janes 2003a:5). Other elders have described the place-based and guiding significance of Sahoyúé-ʔehdacho to the Sahtugot'ine as "a place to regain our balance and perspective"[101] and 'our trail to travel on' (Déline Land Corporation and Déline First Nation 2006).

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[101] Field notes. Sahoyúé-ʔehdacho Directions Confirming Workshop Déline, November 8, 2005.

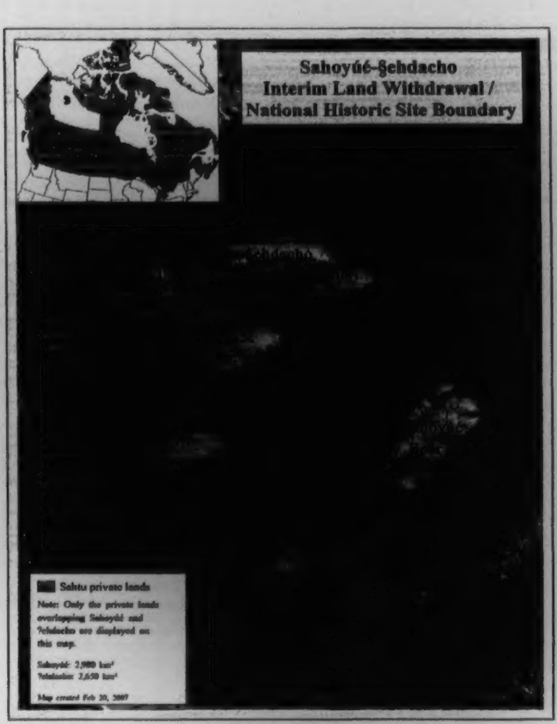
Sahoyúé-§ehdacho
Interim Land Withdrawal /
National Historic Site Boundary
Sahtu private lands
Note: Only the private lands overlapping Sahoyúé and ?ehdacho are displayed on this map.
Sahoyúé: 2,900 km²
?ehdacho: 2,650 km²
Map created Feb 20, 2007

Figure 10. Sahoyúé-?ehdacho Interim Land Withdrawal and National Historic Site Boundary (Used with permission: SEWG 2007)

Sahoyúé and ?ehdacho[102] encompass an area of approximately 5,550 km^2 (2,900 and 2,650 km^2 respectively). Sahoyúé is 95 km in length and 40 km at its widest point whereas ?ehdacho is 85 km in length and 35 km at its widest point. Both peninsulas rise gradually from the surface of GBL to broad and relatively flat summits covered by open boreal forest. The perimeters of both peninsulas are predominated by a series of raised beaches previously formed by the retreat of melting glaciers. These beaches hold evidence of human occupation and confirm that ancestral Aboriginal peoples have lived around, and utilized the resources of, GBL for many thousands of years (Hanks 1996b).[103] Portions of Sahoyúé and ʔehdacho were selected by the Sahtu Dene in land claim negotiations resulting in an arrangement of federal Crown and Dene selected lands with surface and subsurface ownership. Within the NHS boundary,[104] *surface* ownership of Sahoyúé and ʔehdacho consists of 20% by Déline and 80% by the Crown, with 100% of *subsurface* ownership held by the Crown.[105]

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[102] Recall that I use "Sahoyúé and ?ehdacho" to refer to the individual land bodies and the hyphenated "Sahoyúé-?ehdacho" to refer to the proposed cultural landscape complex.

Sahoyúé and ʔehdacho are recognized as significant places in nearly every document related to land management in the Sahtu (SEWG 2007). Discussion of conservation of the cultural landscapes of Sahoyúé-ʔehdacho began in 1986, prior to the land claim, when Grizzly Bear Mountain (as Sahoyúé was then known) was discussed in a workshop on 'Parks Development in Relation to Claims'. Scented Grass Hills (as ʔehdacho was then known) was later added to this list and submitted to Parks Canada in 1990. Within the year Parks Canada funded two community-based traditional knowledge studies run by the Déline First Nation to collect baseline oral histories and used this history to narrow the cultural landscape focus on Grizzly Bear Mountain and Scented Grass Hills (Modest and Takazo 1991, Tetso 1991).

It bears repeating that the commemoration of culturally significant sites was relatively new to Parks Canada and the rest of the world during this period. It was only after the initial consultations between Parks Canada and Déline in 1990 that

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[103] Physical evidence of pre-contact occupation on the south shore of Keith Arm near Sahoyúé has proven to be more than 5000 years old (Hanks 1996a).

[104] The SEWG recently recommended that that the boundary of Sahoyúé-ʔehdacho as a future legally protected and cooperatively managed site remain the same as the current National Historic Site boundary designation (SEWG 2007).

[105] Through Déline Self-Government negotiations, the Déline Land Corporation assumes ownership on behalf of the Sahtu Dene through the Sahtu Secretariat Incorporated/Sahtu Tribal Council (Personal Communication, Raymond Taniton, May 4, 2005).

Parks Canada historians advised Parks Canada on "historiographic challenges of commemorating aboriginal sites… of spiritual significance to an Aboriginal group where there was no material cultured presence" (Hanks 1996a:887). Recognizing Déline's efforts, HSMBC discussed ongoing cultural processes that contribute to site significance (HSMBC Minutes Winter 1996:23 as cited in Hanks 1996a:887).[106]

Based on community direction and the results of the Déline-Parks Canada studies, both peninsulas were included in a list of six heritage places and sites recommended for protection in the 1993 land claim. Déline Chief John Tetso observed that despite their own ways of determining significance, the community also understood the bureaucratic process:

> to the elders, the land is very valuable. But in the eyes of non-aboriginals, the thinking is different; you have to have concrete stories from the elders, past legends, and everything in order for Parks Canada or whoever to consider our proposal. So in 1991, we received contributions from Parks Canada to do work and we have taken out the elders, and we have done work on all the legends, stories, place names… (CBC 1996)

Déline leadership, soon after proposing these sites for protection, approved a Parks Canada archaeological survey of the two peninsulas in 1995 based on previously documented traditional ecological, geographic and heritage knowledge (Hanks 1996a). After the signing and implementation of the land claim, Déline beneficiaries directed their leadership to examine options for the long term protection of Sahoyúé-ʔehdacho.

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[106] In 1991 the HSMBC acknowledged the commemorative potential from (1) the traditional and enduring use of the land, the relationship between the people and the land, and from recent events in a First Nation's history such as its relationship with newcomers (HSMBC Minutes Winter 1991:23). Because of Sahtu land claim negotiations at the time and community discussions toward consensus for protection, five years passed before the 1991 research papers were presented to the HSMBC in 1996 (Hanks 1996a:888).

Déline proposed Sahoyúé-ʔehdacho to the HSMBC as potential National Historic Sites.[107] The rationale for Sahoyúé-ʔehdacho's national historic significance was premised on: "…cultural values -- expressed through the inter-relationship between the landscape, oral histories, graves and cultural resources, such as trails and cabins – [which] help to explain and contribute to an understanding of the origin, spiritual values, lifestyle and land-use of the Sahtugot'ine" (CIS 2004:7). As an elder explained to me,

> in the future we will share the events that took place on these areas. We want to protect it. We do not want to protect [Sahoyúé-ʔehdacho] for the reasons of resources that the land contains, but the true reason is because of our elders' histories there.[108]

Chief Leroy Andre furthermore stressed that while the "natural landscape his people have relied on for thousands of years is critical to the Sahtu Dene sense of identity…stories alone are not enough; 'We need to live it, we need to breathe it'" (News/North 2001). Aboriginal cultural landscapes are thus a blend of what conservation scholarship refers to as 'intangible' and what local or associated peoples would consider 'practical'.

The HSMBC was unanimous in recommending that "Grizzly Bear Mountain and Scented Grass Hills…are associative cultural landscapes of national historic significance."[109] The HSMBC further recommended that Parks Canada enter into discussions with federal and territorial government agencies and the Sahtu Dene to determine and put in place appropriate mechanisms to ensure long term protection of these areas. In a rapid and strategic move, the Délı̨ne First Nation and Délı̨ne Land Corporation in 1996 requested then Canadian Heritage[110] Minister Sheila Copps to recognize the national significance of Sahoyúé-?ehdacho, and more importantly, support an interim land withdrawal in anticipation of protected area status. The department of Canadian Heritage commemorated the national historic significance of Sahoyúé-?ehdacho in August 1999 with the designation of Grizzly Bear Mountain-Scented Grass Hills National Historic Site at the Prophet ?ehtseo Ayha House in Délı̨ne. A significant moment occurred in September of 2000 in Ottawa, when Minister Copps personally committed to Délı̨ne leaders that Sahoyúé-?ehdacho would be a part of the National Parks System implying the use of legislation for its permanent protection.

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[107] This was later followed by a request for even greater protection as a National Historic Park. Up until 2004 the designation "National Historic Parks" described historic properties owned and managed by Parks Canada as historic sites within the national park system. In contrast, the designation 'National Historic Site' was given to all other sites designated by the HSMBC but located outside the national park system (most national historic sites in Canada are privately owned and operated). In 2004, the Canada National Parks Act was amended removing the designation 'National Historic Park' (Canada 2004). As a result all National Historic Parks now fall under the purview of National Historic Sites of Canada.

[108] Interview transcript.

[109] HSMBC Minutes November 19-20, 1996.

Differences between Parks Canada Ministerial commitments and bureaucratic preparedness however, resulted in inaction. It wasn't until March, 2001 that the formal announcement was made in Délı̨ne of Parks Canada's commitment as sponsoring agency for the interim land withdrawal. The tension that arose from previous inaction is evident in comments made by an ENGO leader after the 2001 signing: "two of her [Minister Copps'] staff came up to me afterward and said, 'there, she *finally* said it'" (News/North 2001).[111]

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[110] From 1994 to 2003 Parks Canada was part of the federal Department of Canadian Heritage. Previously, Parks Canada was located within the Department of Indian and Northern Affairs Canada (INAC) (1966-1978), then from 1979-1994 within the Department of Environment. In 2003 it returned to the Department of Environment and currently operates as Parks Canada Agency.

[111] News North interview with Bill Carpenter, Executive Director of World Wildlife Fund, NWT Chapter.

Parks Canada had, and still has, yet to protect a cultural landscape on the scale of Sahoyúé-ʔehdacho.[112] At an early meeting between Parks Canada representatives and Délı̨ne leaders, one Parks Canada representative stressed that the concept of cultural landscape planning for a national historic site like Sahoyúé-ʔehdacho was new for both the people working in the national parks section and the historic site sections of Parks Canada. This lead to the pithy observation that "we are doing a lot of firsts here."[113] From the optics of Parks Canada's planning of National Historic Sites, another senior parks official stated that "whatever we are doing here is a microcosm of what will happen elsewhere" setting precedence for other sites under Parks Canada.[114] The implications were of obvious policy concern within Parks Canada.

Parks Canada's NHS program officially commemorated the aboriginal cultural landscape of Sahoyúé-ʔehdacho in September of 2004. Paralleling the importance of maintaining ecological integrity of National Parks, the challenge of ensuring the "health and wholeness of National Historic Sites" takes place using the concept of commemorative integrity (Parks Canada 2006). The Commemorative Integrity Statement (CIS) provides the mechanism for recognizing the importance of oral history, place names, and traditional lifeways of Sahoyúé-ʔehdacho (CIS 2004). The CIS was jointly developed by Délı̨ne leaders and Parks Canada regional managers to describe the historic values and management objectives of Sahoyúé-

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[112] Interview transcript.

[113] Meeting notes from Sahoyúé-ʔehdacho Working Group Meeting, Whisky Jack Point camp on Great Bear Lake, July 16-18, 2001:1.

[114] Meeting notes from Sahoyúé-ʔehdacho Working Group Meeting, Whisky Jack Point camp on Great Bear Lake, July 16-18, 2001:2-3.

ʔehdacho as well as to ensure that the reasons for NHS designation are respected in management of the particular site (see Appendix J). Formally recognizing the importance of the cultural landscape of Sahoyúé-ʔehdacho as a NHS accompanied by a CIS is largely honorific and does not include legislated long term protective measures. The permanent land withdrawal of an aboriginal cultural landscape through federal, provincial or territorial legislation is one way of redressing this oversight. The Northwest Territories Protected Areas Strategy (NWT-PAS) was understood as the key instrument through which permanent withdrawal of Sahoyúé-ʔehdacho could be achieved.[115]

There are two key reasons for Sahtugot'ine interests in protecting these cultural landscapes through the NWT-PAS and NHS processes. First, permanent protection is part of the process for ensuring the continuation of the Sahtugot'ine relationship with the land, including oral history and traditional lifeways (Hanks 1996a, Grieve 2005). The second reason is more practical. With increasing oil, gas, and mineral exploration and potential development in the district, there is concern that industrial pressures and defacement of the landscape as foreseen by GBL prophets[116] would, in the words of Déljne leader Leroy Andre, physically "strike at the heart of Sahtugot'ine culture" (Hanks 1996a:886). In this sense, the traditional and spiritual *is* the physical and ecological.

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[115] The resource development boom from which the NWT-PAS partially originates signaled to many people a need for a comprehensive effort to identify, evaluate, and establish additional protected areas on both natural and cultural bases. As a result of a legal challenge by the World Wildlife Fund to the BHP diamond mine environmental assessment panel report in 1996, the Federal and territorial governments made a commitment to develop a protected areas strategy for the Northwest Territories.

[116] ʔehtseo Ereya Ayah (1858-1940) was perhaps the most revered and influential prophet with regards to Great Bear Lake (Blondin 1997, Morris 2000). Later in the 1960s, "Old Naedzo", was the most influential prophet in Déljne. Prophets have existed in the Sahtu and Tlicho (Dogrib) region for as long as people can remember (Morris 2000). Ayah, in particular, was known for his visions of negative changes to Great Bear Lake area due to extraction of minerals and oil from the ground and water from the lake.

Federal Minister Copps' commitment of Parks Canada as the cultural landscape's sponsoring agency led to the creation of the NWT-PAS Sahoyúé-?ehdacho Working Group (SEWG).[117] The SEWG coordinated the publication of assessments on ecological, renewable resource, non-renewable resource, socio-economic, and cultural aspects of the candidate protected area. Site assessment documents are critical for providing comprehensive justification and determination of the type and level of protection for the cultural landscape. The SEWG mandate also included a provision for guidance and recommendations on long term protection mechanisms to governments and community organizations. Similar to the NHS process, the NWT-PAS approach - seen as "soft action" towards protection (Buggey 2004:39), does not establish conservation legislation nor determine options for protection. Instead, as a collaborative and social learning process the NWT-PAS states that "it is possible that as the various concerned parties jointly come to an understanding with respect to management of these lands in the Sahtu, the result could constitute an interesting example of formal establishment and management of a cultural landscape" (NWT-PAS 1999:47).

At the same time that Délįne leaders were working with the HSMBC to recognize Sahoyúé-?ehdacho as an aboriginal cultural landscape, the NWT-PAS was being developed, which would serve as the mechanism through which the partnership could operate. The impetus and development of the NWT-PAS has its origins in aboriginal land claim processes and legislation combined with the rapid increase in diamond and gas exploration and development in the 1990's. The strategy is a

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[117] The SEWG includes resource managers and leaders from Délįne, DIAND, Parks Canada Agency, the territorial/federal Protected Areas Secretariat, Government of the NWT, as well as assistance from the NWT chapter of Canadian Parks and Wilderness Society (CPAWS-NWT). Representatives from mining, oil and gas industries were invited to participate, but declined because they did not hold third-party industry interests in the peninsulas (SEWG 2007).

> community-driven, joint federal/territorial/aboriginal government initiative established by the Government of Canada and the Government of the NWT… by which NWT communities, regional organizations and land claim bodies can initiate protected area proposals and, subsequently, work with the three levels of government and other interested bodies to evaluate candidate areas, negotiate protected area agreements, establish protected areas and, where needed, periodically review and monitor protected area implementation (SEWG 2007:10).

Protected areas design and community-based conservation planning processes can be undertaken separately but if done so have a greater probability for failure (Brosius 2004). Moreover, in aboriginal communities the separation of these processes could alienate and foster resentment with the development of so called paper parks – areas protected in name only (Leroux et al. 2007, Philips 2003). Currently, permanent protection in the Northwest Territories is dominated by National Parks designations (see figure 11). However, under proposed NWT-PAS planning, protection and conservation of natural and cultural landscapes under a variety of legislations is expected to increase substantially.

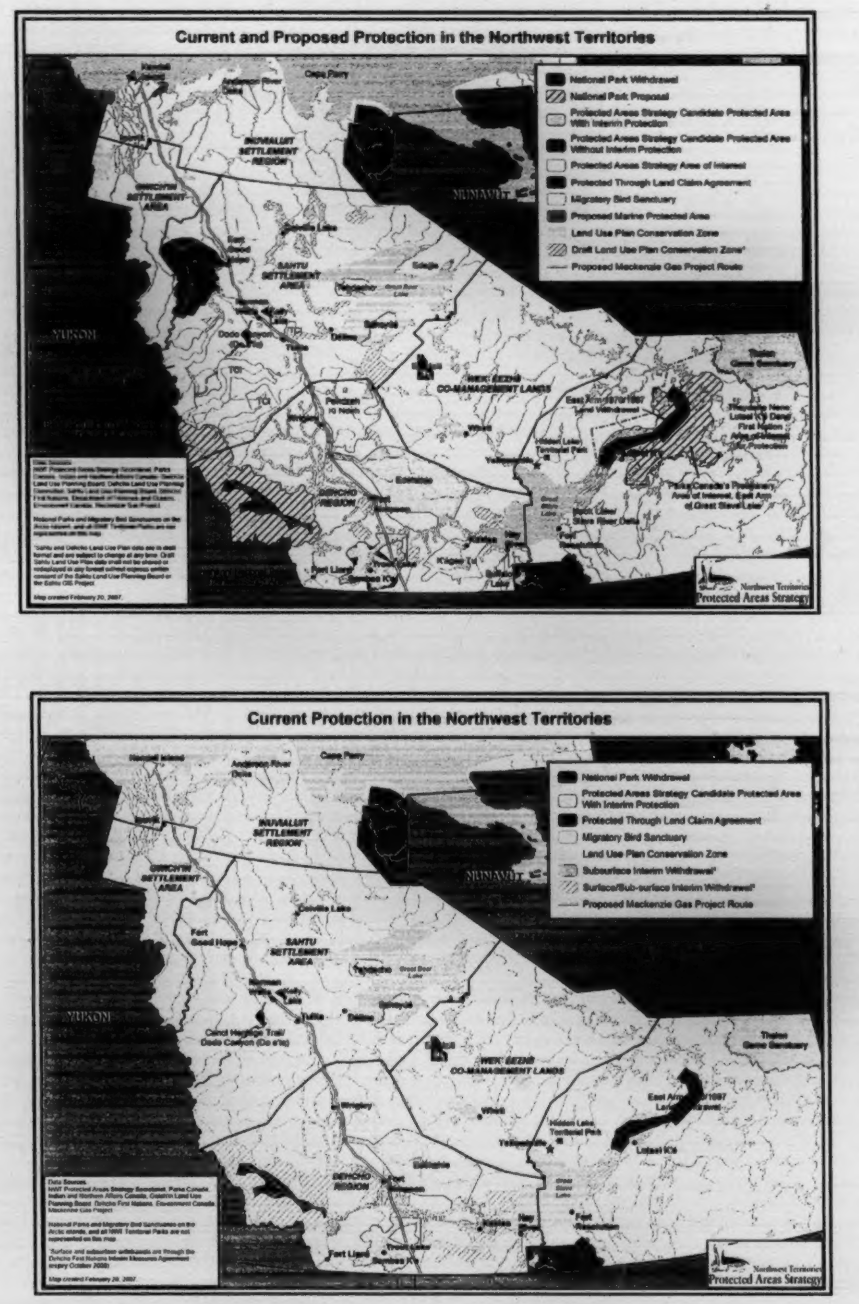
Current and Proposed Protection in the Northwest Territories
National Park Withdrawal
National Park Proposal
Protected Areas Strategy Candidate Protected Area With Interim Protection
Protected Areas Strategy Candidate Protected Area Without Interim Protection
Protected Areas Strategy Area of Interest
Protected Through Land Claim Agreement
Migratory Bird Sanctuary
Proposed Marine Protected Area
Land Use Plan Conservation Zone
Draft Land Use Plan Conservation Zone*
Proposed Mackenzie Gas Project Route
INUVIALUIT SETTLEMENT REGION
GWICH'IN SETTLEMENT AREA
SAHTU SETTLEMENT AREA
WEK'EEZHII CO-MANAGEMENT LANDS
DEHCHO REGION
NUNAVUT
YUKON
Cape Parry
Anderson River Delta
Colville Lake
Fort Good Hope
Great Bear Lake
Wrigley
Yellowknife
Fort Liard
Thelon Game Sanctuary
Parks Canada's Preliminary Area of Interest, East Arm of Great Slave Lake
Map created February 20, 2007
Northwest Territories Protected Areas Strategy
Current Protection in the Northwest Territories
National Park Withdrawal
Protected Areas Strategy Candidate Protected Area With Interim Protection
Protected Through Land Claim Agreement
Migratory Bird Sanctuary
Land Use Plan Conservation Zone
Subsurface Interim Withdrawal*
Surface/Sub-surface Interim Withdrawal*
Proposed Mackenzie Gas Project Route
INUVIALUIT SETTLEMENT REGION
GWICH'IN SETTLEMENT AREA
SAHTU SETTLEMENT AREA
WEK'EEZHII CO-MANAGEMENT LANDS
DEHCHO REGION
NUNAVUT
YUKON
Kendall Island
Anderson River Delta
Cape Parry
Colville Lake
Fort Good Hope
Great Bear Lake
Canol Heritage Trail
Doda Canyon (Do e'ta)
Tulita
Deline
Wrigley
Whati
Hidden Lake Territorial Park
Yellowknife
East Arm 1970/1987 Land Withdrawal
Lutsel K'e
Great Slave Lake
Fort Resolution
Fort Liard
Sambaa K'e
Thelon Game Sanctuary
Data Sources
Map created February 20, 2007
Northwest Territories Protected Areas Strategy

Figure 11: Current and Proposed Protected Areas in the Northwest Territories (Used with permission: Protected Areas Secretariat 2007)

The NWT-PAS incorporates a protected landscape approach within a mosaic of suggested protection tools including territorial, federal and even international designations. In essence it is a conservation strategy based on the interactions of people and nature fostering stewardship by those living in the landscape (Brown et al. 2005). After having completed the initial necessary administrative and information-gathering steps of the NWT-PAS for Sahoyúé-?ehdacho, a five-year interim land withdrawal of surface and subsurface rights was accorded by a federal Order in Council in February, 2001. The purpose of the interim land withdrawal was to provide short term protection for the area so that detailed evaluations (and remaining PAS steps) could be completed without concerns about industrial development impacts on landscape integrity. Despite the fact that Sahoyúé-?ehdacho is the first candidate area to receive interim protection through the NWT-PAS (Stadl et al. 2002), the amount of time required for its completion was not well understood and as a result underestimated.

From pre-SEWG formation through to the land withdrawal periods, debates on options for protection were explored through discussion papers from consultants, ENGOs, and Parks Canada (see Appendix I). During this time, however, frustration was shown by community and SEWG members surrounding what was perceived as the definitive discussion paper by Parks Canada: the so called 'Options Paper'.[118] Ever-changing release dates for the paper and challenges to its contents illustrate that while formal processes of the NWT-PAS and NHS are taking place, the protection of cultural landscapes is an inherently political process. Although the Options Paper is arguably a Parks Canada discussion paper, it is powerful in that without it, decisions between Parks Canada and Délı̨ne could not be made with respects to a common approach to management of Sahoyúé-ʔehdacho. Without an agreed-upon option, negotiations would be irrelevant. The delay in the Options Paper in essence limits discussion as well as the NWT-PAS formal process. After explaining why they wanted to protect Sahoyúé-ʔehdacho, the work that has been done so far, and the frustration with how long it has taken, Délı̨ne leaders Charlie Neyelle and Raymond Taniton succinctly made their point to senior bureaucrats: "It has taken 10 years and still no protected area, but someone can get a prospecting permit in 20 minutes."[119] The significance of this political dimension will be directly and indirectly explored in following chapters.

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[118] The full name of the so-called 'Options Paper' is the "Draft Issue Analysis: Protection, Presentation and Management of Grizzly Bear Mountain and Scented Grass Hills (Sahoyue-?Edacho) National Historic Site of Canada" [sic] (Parks Canada 2005). For brevity sake, I use the heuristic title.

Step six of the NWT-PAS process (formal establishment of the protected area under the sponsoring agency's legislation) was initiated with the completion of the SEWG Final Report consisting of assessment report key findings and recommendations to the Délı̨ne negotiating team, sponsoring agency Parks Canada, and other federal and terrestrial departments (SEWG 2007). Step seven's approval and designation of the protected area will follow after negotiations for the management of Sahoyúé-ʔehdacho as a protected cultural landscape based on the option chosen using the Options Paper. During the completion of the SEWG final report in 2006, however, the community had already indirectly initiated a negotiation process after choosing their desired protection option for cultural landscape protection. The content of the Options Paper only confirmed what community leadership preferred in terms of management of Sahoyúé-?ehdacho.

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[119] Meeting notes with INAC senior officials and policy analysts, Ottawa, June 29, 2006

Délįne's preference was essentially a co-management option in which Parks Canada becomes the custodian of the Crown land (through a transfer of lands from the Minister of DIAND to the Minister of the Environment) while Délįne remains owner of the Sahtu lands with the development of a protected area cooperative management agreement for the national historic site.[120] Yet, as Susan Buggey (2004:34), chief architect of the formalization of aboriginal cultural landscapes in Canada notes, the transfer of land to the federal Crown in the name of Parks Canada is a "now extremely rare" approach used in northern Canadian conservation practice. The transfer of lands in order to accommodate Sahoyúé-?ehdacho may set an even deeper precedent yet.

While the process undertaken by Délįne may seem complex and drawn out, community members use the analogy that "when you go into the bush for a few days, you need to take the right things in your pack so that you have a good trip – our work is like that – putting in the right things."[121] Another community member observed that

> *Option 1* [of the Parks Canada discussion paper] seems like when you go trapping you work real hard to make sure that you don't forget anything, whereas *Option 2* and *3* seem to be more like when you're not sure if you've got it all.[122]

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[120] Key aspects of other Options Paper scenarios are as follows: *Option 1* – Based on acquisition by Parks Canada; Cooperative management of the entire NHS; becomes a protected area; requires long term federal funding commitment; day to day management out of Délįne. *Option 2* – no long term federal funding; withdrawn from PAS process; and protection would possibly come through the yet to be finalized Sahtu Land Use Planning Board as Parks Canada would no longer be the sponsoring agency. *Option 3* – no long term federal funding; permanent withdrawal would have to be through special legislation; and while Parks Canada could remain as sponsoring agency, Délįne would take on a greater role akin to that of regional management.

[121] Field notes. Sahoyúé-?ehdacho Final Report Review Workshop, Délįne, Oct 27, 2006

[122] Field notes. Sahoyúé-?ehdacho Délįne Negotiation Workshop, Délįne, Oct 26, 2006

In this sense the choice of option 1 seems to be most compatible with Sahtugot'ine contemporary and historical practice. During a lengthy discussion about a process to give Délįne a stronger role in the protected area's future co-management board, it was also felt that the financial capital and opportunities that Parks Canada brings forth under *Option 1* (along with their greater involvement) would allow Délįne more opportunities for alternative conservation and management practices, as well as community development projects under this relationship matrix.

Soon after the SEWG completed their assessment reports and draft final report in 2007, a Memorandum of Understanding (MOU) was signed between the Minister responsible for Parks Canada, the President of Délįne Land Corporation (DLC) and the Chief of the Délįne First Nations (DFN) outlining their commitment to work towards permanently protecting and cooperatively managing Sahoyúé-ʔehdacho National Historic Site of Canada (Parks Canada Agency 2007, MOU 2007). The announcement included a funding commitment of five million dollars (CDN) over five years for initial development and $700,000 per year thereafter. In late 2007, negotiations between a Délįne Team[123] and Parks Canada led to the proposal for a cultural landscape managed as a National Historic Site of Canada, according to the terms of a newly developed Protected Area/Cooperative Management Agreement. A co-management board, the members of which will be appointed jointly by the Sahtu and Government, is expected to provide advice on all aspects of planning and management of the site. The legislative mechanism to be used to permanently protect the cultural landscape as a National Historic Site of Canada has yet to be determined, but the expected procedure is through the inclusion of the area under the National Historic Sites of Canada Order, in accordance with Section 42 of the Canada National Parks Act.[124] This process will bring the collaboratively managed site under the general administration of the Minister responsible for Parks Canada.

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[123] Well before any positive announcements such as the MOU were made, a Délįne Team was organized in 2006 at a Délįne leadership workshop in preparation for negotiation of the management of Sahoyúé-ʔehdacho with Parks Canada. The structure of the Team consists of a chief negotiator, the president of the DLC, the Chief of the DFN, the President of the Renewable Resource Council, a Délįne Self-Government representative as well as a legal advisor.

CONCLUSION

The protection of the cultural landscape of Sahoyúé-ʔehdacho exemplifies the influence of Aboriginal peoples' history and values in changing the definitions of heritage places and wilderness areas in Canada. Summarizing a turbulent five years in the process of cultural landscape protection, a Parks Canada SEWG member notes:

> …it's fair to say that in the past Parks Canada didn't know where they were going with respect to commitment but now Parks Canada is seriously committed to Sahoyúé-ʔehdacho. We do understand the importance and significance of Sahoyúé-ʔehdacho to Délı̨ne…[and as a result] Parks Canada is committed to the long term.[125]

Through a social definition of conservation (Brosius and Russell 2003:38), community-driven conservation has the opportunity to illustrate alternative approaches to the conceptualization and practice of conservation. This case study of Sahoyúé-ʔehdacho aboriginal cultural landscape as community based conservation is illustrative of the need for the development of a cross-cultural conservation ethic

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[124] At the time of this writing, negotiations between Parks Canada and a Délı̨ne Team were taking place. Parks Canada' National Historic Sites Program and the Department of Heritage are currently developing a Historic Places Initiative which is a comprehensive strategy with legislation for preservation of historic places including cultural landscapes. The proposed legislation will encompass both NHS owned by Parks Canada currently with legal protection as well all other sites in the federal NHS inventory (Canadian Heritage 2003).

[125] Sahoyúé-ʔehdacho Decision Making Workshop, Délı̨ne, November 9, 2005

Berkes (2004). Community conservation ideas are encouraged, and processes are empowered to participate at multiple levels. As the Durban Accord quote that opened this chapter stresses, conservation programs often need to encompass a broad view of the livelihood needs of local people and their knowledge and interests. This includes a broader consideration of conservation as many observers point out that our definitions of conservation have perhaps been too simplistic and overly Western-centric (Berkes 2004, Agrawal and Gibson 2001, Kellert et al. 2000).

The case study of Sahoyúé-ʔehdacho points to the need to rethink conservation as action that starts from the ground up yet responds to and is influenced by cross-scale relationships. In this chapter I presented the case of Sahoyúé-ʔehdacho in depth to demonstrate that shared understanding comes about through 'practical understanding'. Practical understanding requires balancing a nuanced understanding of the nature of communities as institutions with the political and structural conditions that can easily constrain shared understanding and learning. The exploration of a practical understanding might allow for the future development of established NRM institutions in the Canadian North such as co-management. These ideas will be examined further in the next chapters within the backdrop of these two cases.

Chapter Six:
Practical Understanding

INTRODUCTION

The previous three chapters have laid the foundation for what I consider to be an important yet unexplored domain of NRM: shared understanding within practice. Practice is, in this sense, inclusive of the daily practical realities of Aboriginal people in local communities trying to increase their role and influence in managing their traditional lands. Practice also includes people from outside the community working within the boundaries of their own organizations and scientific disciplines. The other aspect of understanding in practice is through interactions in the social, cultural and political domain of NRM. My introduction to the challenges facing people trying to understand one another while working in community-based NRM projects came during the first meeting that I attended between government and ENGO representatives, and Déline community leaders.

> *Sitting between a Déline elder and a water scientist in the GBL management plan Technical Working Group meeting in Yellowknife, I realized that this process was anything but technical. What was planned as a 'roll up your sleeves and write a research and monitoring plan' type meeting quickly shifted direction and began to reflect the intersecting realities of community and government. The facilitator ran us through a review of the planning framework, formulation of principles and standards, and then research logistics. But the meeting soon ran into the reality of tenuous government funding. The DIAND director dropped a bombshell that even the facilitator wasn't ready for: the management plan would not be funded with core money, only where there was funding available on a year to year basis. The shock of the announcement led to a re-grouping in which Raymond shook his head at me: "what's the point if government can't even support our plan?" Later, when Charlie raised the issue of*

> *Délı̨ne's interest in leading cultural research and training projects, a federal government scientist, who seemed to be uncertain on how to deal with culture and science, responded tersely "okay, but it's now on your plate." Riding the elevator down that evening I was uncertain if this meeting would even see a second day after these events.*[126]

My early experience with the GBL working group illustrates an important point that I was to discover repeatedly in my research. The type of deep understanding needed in complicated NRM planning was nearly impossible to attain without a means of delving into its historical and socio-cultural context. I explore how outside resource managers from federal and territorial governments, environmental non-government organizations, and Délı̨ne community members perceive, negotiate and practically apply one another's diverse understandings of natural resource management. My experiences living in Délı̨ne and involvement with the two case studies led to an ethnographically informed approach whereby I examine and apply the idea of shared understanding to practice and in turn, practice to understanding.

As discussed in chapter three, a number of authors have stressed the inherent incommensurability of different understandings within NRM co-management (for example the concepts of management and resources in aboriginal cultures). These authors' research, taken as a whole, implies a need to rethink the engagement of human values which have been made to be irrelevant by, and invisible within, current resource management practices (Howitt 2001). The question that remains is how to think differently about the management of natural resources such that resource managers have their worldviews challenged while at the same time recognizing the impact of their practices and decisions on the lives of those people with whom they are working. At the heart of any answer to this issue is the recursive interaction between ways of seeing, ways of thinking, and ways of doing in the 'language' of cultural and social diversity, language of landscape, and the language of values as they interact with resource management systems (Howitt 2001:9).

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[126] Field notes, GBLTWG Meeting, Yellowknife.

This chapter aims to explore Howitt's reconceptualization challenge in order to consider how practical understanding is situated not only within the context of people's lives but also in the power relations coursing through NRM. It is proposed that only in understanding the former, can the latter be fully understood and attuned to diverse political and economic situations. A review of how social perception and understanding has been approached in the NRM literature is followed by a brief yet important synopsis of the knowledge systems that are in play in northern Canadian NRM. The greater part of this chapter explores the role of practical understanding, originating in narrative and metaphor, used in the planning processes of the GBLMP and the protection of Sahoyúé-ʔehdacho cultural landscapes. Finally, language as inextricably bound within these narratives is examined as to how it is integral to practical understanding.

SOCIAL PERCEPTIONS AND UNDERSTANDING IN NATURAL RESOURCE MANAGEMENT

In the past thirty years a great deal has been written from within the social sciences about how people perceive and understand one another in the context of the natural environment. In North American circumpolar regions a "dangerous disjuncture" exists between what non-aboriginal and aboriginal people think and say with respects to one another's use of natural resources (Fienup-Riordan 1990[2003]:123). Fienup-

Riordan tells us that it is *our* ideas about aboriginal peoples that contribute to the creation of the framework in which *they* are forced to reside. In other words, western society has created an 'othered' image of aboriginal people. This image is so broadly applied such that stereotypes become established, often remain unchallenged, and have to be lived within by Aboriginal peoples. In the process of developing NRM institutions, outside resource managers may unknowingly incorporate these images in personal relationships.

Community-based resource management programs are commonly premised on the subsidiarity belief that local populations have a stronger interest in the sustainable use of resources than do state or distant managers; that local communities are more cognizant of the intricacies of local ecological processes and practices; and that they are better able to effectively manage those resources through local or traditional forms of access (Brosius et al. 1998). Yet, CBRM and co-management is more likely imagined in different ways by different actors (Brosius et al. 1998, Gamble 1986). These conceptions are not static within each group. They are fluid and change over time as partnerships form among them with changing needs. Salisbury (1977), investigating the rationalization for developing the James Bay Hydroelectric project in northern Quebec, observed that, like fluid and dynamic non-aboriginal perceptions of development, aboriginal perceptions of development are as complex and with as many conflicting issues. He showed that they can be interpreted in such ways as national self-realization, as job creation, as civilization, and even as disaster (Salisbury 1977). For Aboriginal peoples, not all resource development activities are rejected on single fundamental basis, as the issues facing them are also complex and multi-faceted. Such complexity contradicts Western assumptions that maintaining a 'traditional way of life' is the sole factor in industrial development considerations in aboriginal communities (Salisbury 1977, Lane 2002).

An examination of people within their surroundings, and from an interpretive perspective, illustrates how a greater understanding of the underpinnings of resource management can be accomplished without relinquishing power to a static structural analysis (Nuttall 1992). Traditionally, the wellspring of a community and its culture is fixed in place names, hunting memories, and past social events. Seen as memoryscapes, these places metaphorically provide a sense of "bounded locality" that differ from other community's memoryscapes strengthening a sense of belonging and moreover a continuity of knowledge. But landscape as memoryscape is highly differentiated and defined as well as deeply nurtured. In these land-based memoryscapes, "physical environment is perceived by the senses and through the interaction of experience, thought and language it is modified, ordered and conceptualized" (Nuttall 1992:40). Both Salisbury and Nuttall point to a need for further exploration of meaning and understanding of environment, and more specifically how management of the environment is understood within modern contexts. The multiple meanings and understandings that affect conflict in resource management practices are epistemologically and ontologically derived. This requires some explanation of the different knowledges used in northern resource management.

KNOWLEDGE SYSTEMS UNDERPINNING THE USE AND MANAGEMENT OF NATURAL RESOURCES

It is not my intent to deconstruct traditional knowledge in comparison to the western science underpinning NRM planning and conservation science. Such an approach has been covered by many people and is well-addressed.[127] While I agree with Stevenson (2004) that we have nothing to gain by jumping into each other's epistemological and ontological canoes, a brief overview of the relationship between these two knowledge systems is warranted because of the changing nature of the relationship between knowledges and how they are used in contemporary NRM.

In many ways there are profound epistemological differences between western science and traditional aboriginal ways of knowing (Fienup-Riordan 1990[2003]). Given this divide, traditional knowledge has been compared with knowledge originating in western science by a number of scholars. Typologically arranged, such academic comparisons can be useful to illuminate key epistemological or practical differences. The different characteristics shown in Appendix G portray a general picture of a western scientific perspective, knowledge, and method relative to traditional knowledge. The picture is one of Modernity accented by acontextuality, a dichotomized nature-culture relationship, and operating from an instrumental or commoditized attitude toward nature (Berkes 1999, Nuttall 2000). Traditional knowledge in contrast is based on a distinctive socio-cultural perspective and set of interests grounded in shared history. It is locally-specific empirical knowledge that originates from long use of a particular place, built up socially, and passed on to subsequent generations (Déline First Nation 2005). Perhaps most unlike western science, it is seen as an "ethical-epistemological-cosmological understanding of how to live in the world, how best to be human, of understanding responsibilities to others and to the world" (Abele 2007:243).

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[127] See for example, Houde (2007), Menzies (2006), Government of Canada (2004), Tsuji and Ho (2002), Berkes et al. (2001), Berkes (1999), Stevenson (1997), Roberts (1994), and Labatut and Akhtar (1992).

The relationships between traditional knowledge and western scientific knowledge provided in Appendix G illustrates these elements with respect to how they might be used in re-orienting thinking about knowledge systems, and its use in NRM practices. Rather than suggesting a purely traditional or western science management system, this figure presents two ends of a spectrum often used as typologies in discussions of alternative systems envisioned as interacting between the two (for example as with co-management). Conceptual comparisons between traditional knowledge and western science must be read with care as such lists are often presented and interpreted in an over-generalized and mutually exclusive manner (Abele 2007, Berkes 1999).[128] It should also be noted that such a dichotomization can lead to unproductive dialogue based on the idea of multiple domains and types of knowledge. Agrawal (1995:422) refers to "neo-indigenistas" as acritical and apolitical advocates of indigenous knowledge caught up in a dichotomized dilemma. Tacitly supporting the dichotomy between traditional and western scientific knowledge leads to an inability to acknowledge the variation, transformation, exchange and communication and learning in cultural systems resulting from historical contact. Paradoxically, this can lead to an essentializing strategy of isolation, documentation, and storage of traditional knowledge that is disseminated following the same strategy as western science (Sejerson 2003).

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[128] It is for this reason that the list of perspectives on knowledge in Appendix G is not separated within the rows. This format is meant to illustrate some generalized differences in the knowledges.

PRACTICE AND UNDERSTANDING

Perhaps the way out of this dilemma - the authoritative positioning of a single knowledge and over-generalized dichotomies when considering knowledge systems - is through what Frank Sejersen (2003) refers to as the contextualist position. In the contextualist position knowledge is seen as being produced within and contributing to the socio-cultural context and with political consequences (Nuttall 1998, Sejersen 2003). Central to this approach is an examination of how and why knowledge system boundaries are developed, manipulated and maintained between all participants and not just the dominant group. Researchers need to concern ourselves with the "social conditions under which such knowledge becomes defined, produced, reproduced, and distributed…in struggles for legitimacy" Cruikshank (1998:49). The so-called knowledge debate will likely not be resolved by processes of integration or bridging of management systems and knowledges. Rather, a resolution of sorts might arise out of necessary spaces for meaningful and equitable inclusion in managing resources, which at the same time allow for a re-examination of how relationships are managed (Stevenson 2006). The contextualist position appears to be a means with which to explore how people understand one another's conception of resource management.

Sociological Perspectives on Understanding

An examination of shared understanding from a sociological perspective takes account of what the social anthropologist Jean Lave stresses: that thinking is not what goes on in someone's head; rather it is situated in social context (Lave 1988). Shared understanding has been portrayed in social psychology as social cognition but often without an explicit account of social structure (Howard 1994).[129] A cognitivist take on social cognition is how people make sense of other people and of themselves, and concerns both the acquisition and processing of social information in a social context (Howard 1994). Here cognition is regarded as primary and consists of a largely automatic process involving little or no reflection. A social constructivist approach treats social processes as a form of cognition (Resnick 1991, Douglas 1986). In NRM, Röling (2002) proposes a shift from individual multiple cognitions to interrelated distributed cognition and to an understanding of group processes to capture the essence of social learning. Yet social learning, despite its diverse application in many fields, still lacks conceptual clarity (Schusler et al. 2003) with sparse empirical based explanations of its dynamics (Muro and Jeffry 2008). Schusler et al. (2003) tell us that social learning in NRM "occurs when people engage one another, sharing diverse perspective and experiences to develop a common framework of understanding, and basis for joint action" (P. 311). While optimistic, they also conclude that due to its limitations with regards to power influences and divergent worldviews, social learning is necessary but not sufficient for the development of co-management.[130] A key question is how much actual change results from the learning which no doubt occurs in social situations.

The development of cognitive sociology is a broadly applicable perspective that provides insights into how groups of people construct the culture that mediates meanings for individuals. An area of concern is the existing intersubjective social world where cognitive and cultural diversity is the sociological focal point (Zerubavel 1997, DiMaggio 1997). As sociology increasingly focuses on cognition and culture it is often from the standpoint of examining various classifications of phenomenon with a micro-level concern for thought communities and meaning-making (Brekhus 2007). As a result of this intersubjective focus, new questions are raised such as 'how can people know the same thing if they are constructing their knowledge independently?' and 'how can social groups coordinate their actions if each individual is thinking something different?' (Resnick 1991:1-2).

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[129] For example, as the originator of social cognitive theory, Albert Bandura's psychological work acknowledges sociostructural and cultural influences, yet takes a self-professed strongly agentic perspective to social contexts (Bandura 1999, 2001).

[130] See also Woodhill's (2002) conclusion from analysis of the Australian Landcare program that social learning needs to be broadened to include political change and institutional design considerations.

One of the ways forward on these questions may be through exploring cognition and understanding as practice rather than solely information processing and representation.[131] Howard (1994:216) in fact states that "the historical and contingent nature of the self is always embodied and located in the world. Internalized values and attitudes are less important than action; in other words 'cognition *is* practice'." Practice, in its conceptualized form, is everyday routinized behaviour consisting of interconnected elements. Practice consists of forms of bodily activity, cognitive events, 'things' or resources that we use, background knowledge and understanding, know-how, emotions, and motivational knowledge (Reckwitz 2002). Exploring understanding from a practice theory perspective means that neither cognition, discourse, nor interaction is given predominance. Importantly, a person's activities, choices, and actions all take place within a multilayered social context that affects interpretation and meaning at the local level (Vaughan 2002, Resnick 1997). The study of practice is related to practical knowledge, based on the Aristotelian notion of

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[131] Much examination of cognition focuses on the stages of processing of perceptions and transformation of perceptual stimuli into representations of the environment as schemas.

phronesis – a knowledge located in context, a value-influenced form of rationality and action (Flyvbjerg 2001). Practical knowledge is what the habitus acquires, in Pierre Bourdieu's theory of practice (Bourdieu and Wacquant 1992). In terms of my research, determining how people understand one another in NRM is foundational on how, and to what degree, knowledge is shared in practice, rather than a solely interpretive or intersubjective endeavour.

Theory of Practice

Amongst practice theorists, Pierre Bourdieu provides an interpretation of practice in which the above interconnected elements are explained through the concepts of habitus, field, forms of capital, and strategy. The habitus is an internal embodied sensibility that goes beyond simply the mental faculties of individuals. Each person (or group) is the product of internalized structures that guide their attitudes, values, perceptions, and dispositions and behaviour (the habitus), which is in turn a product of objective external social and political structures and historical circumstances (the field). Practice therefore, is the product of the encounter between habitus and field, and directed by strategies, which are modified as objective external conditions change. The habitus is an "open system of dispositions that is constantly subjected to experiences…" (Bourdieu and Wacquant 1992:133). The term 'disposition' is essential to defining the habitus as it expresses those behavioural tendencies which produce a routinized or habitual state (Bourdieu [1972]1977). The idea of the habitus as both cognitive and embodied can generate what Bourdieu calls practical metaphors, the transfer of schemes of thought from one field to another (Bourdieu [1984]2007).

Although resilient and structured, habitus's are also generative and transportable in that they are capable of producing an array of actions and perceptions in contexts other than those in which they were originally acquired. For example, Aboriginal people, in adopting NRM modes of thinking, manners of speech, and management styles in co-management and other governmental board practices, often come to take on a particular habitus of western-based state management practices that advance particular assumptions and understandings (Stevenson 2004). Nadasdy (2003) notes that in order for Aboriginal peoples to affect resource management change they have to act and organize themselves according to this system, based on their successful and failed experiences in getting heard. As a form of socialization, individuals learn from the way they perceive, assess, and understand what they encounter in their day to day lives, and then classify, according to social principles, what is taking place around them. These socially derived classifications may serve to maintain those very same external structures that sustain power imbalances.

Habitus is more dynamic and with more interplay between subjective and objective conditions when applied with the concept of field and associated forms of capital or resources, than if used as a singular concept. Field, the key spatial metaphor in Bourdieu's theory of practice, defines the structure of the social setting in which the habitus operates (Swartz 1997). A field is constituted by social positions consisting of individuals and groups with specific interests and stakes, power relations, and strategies for legitimation. The relationship between habitus and field is one of complicity. The field structures the habitus, which is embodied materially, while the habitus contributes to constituting the field as a meaningful world

(Bourdieu and Wacquant 1992). Field and habitus are therefore somewhat alike, or mirror each other, in that objective social structures and internal structures make up and contribute to one another in an ongoing and dynamic process. As Bourdieu tells us, "action…lies neither in structures nor in consciousness, but rather in the relation of immediate proximity between objective structures and embodied structures in habitus" (1996:38). The closer the fit between habitus and field, the more likely is someone to feel at ease, and as Stevensen (2004) and Nadasdy (2003) observe, more easily manipulated in maintaining antithetical NRM practices. The use of capital, or the resources used to attain, sustain, or challenge the fit between habitus and field, may act as a driver of change.

Bourdieu's conception of capital is proposed as the capacity to exercise control over one's future as well as that of others, thus implying the competitive nature of fields. Capital consists of social, cultural and economic forms but essentially refers to all valued resources that an actor can access and employ.[132] The real value of capital however, consists in how it is accepted and converted to symbolic forms. The legitimation of symbolic capital (integral to all power relations) allows it to become power in a symbolic form. Symbolic power is not explicitly recognized but rather tacitly accepted. While an individual's capital is always relative to one's habitus, the struggle for how capital is used takes place in fields where it is symbolically accumulated and in certain cases converted into material capital, and vice versa.[133] Social practice can therefore be seen in terms of the dynamic strategies and relationship between habitus and current capital as carried out within the specific logic of a given field.

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[132] Bourdieu sees economic capital as real money and possessions, social capital as contacts and networks, and cultural capital as education, qualifications, and marks and actual objects of distinction.

[133] See, for example, David Mosse's 1997 examination of symbolic capital in tank irrigation systems.

The above discussion of understanding and practice theory implies that an examination of understanding within a northern NRM setting cannot be explained solely from a mentalistic standpoint as it misses the rich and varied experiences within social contexts. The following section explores the effects of contrasting habituses among interactions in the GBLMP and Sahoyúé-?ehdacho working groups.

PRACTICAL UNDERSTANDING: THE WATER HEART

> Best [industry] practice is to 'avoid the water [GBL] so we'll go directional drilling'. But then there's another kind of best practice. There's the best practice from here in the community where people are actually thinking on a *different scale*, in a *different way of thinking*.[134]

The above quote by a community member regarding oil and gas extraction within the GBL lakebed illustrates how divergent understanding of natural resource management can become. On the one hand, pragmatic and technical actions using industrial best practices; and on the other hand, the influence of culture, spirituality and history in practical understanding.[135] Finding a place where the two can meet has proven elusive in NRM. The story of the heart of the lake, or "Water Heart", was first related to the GBLTWG in a June 2003 meeting in Yellowknife. Eight months of watershed planning were conducted prior to this, primarily under a conventional planning process.[136] During those months of early planning, it was believed that the process was “on the right track in terms of typical planning steps” (Robertson and LeGresley Hamre 2003:7). During this same period however, community members complained about lack of involvement and questioned the use of a co-management structure ostensibly out of a concern that their current undesirable situation was indicative of all co-management. In response, the planning process was altered and increasingly used small group discussions in Délı̨ne to address the community issues such as Délı̨ne’s role in day-to-day management of GBL, type of management structures needed, improving communications among organizations, boards and agencies, and principles for GBL (Nesbitt 2003a). This shift in response to community concerns was the start of an entirely new type of planning, and demonstrates that correctives can be applied in mid-process.

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[134] Interview transcript.

[135] Returning to Flyvbjerg (2001), the industrial approach to science is based on *techne* (science) and *episteme* (craft) with a universal and pragmatic orientation toward production. Community knowledge is more likely a form of phronesis where ethics and values are integral to context-dependent decisions.

It was Délı̨ne elder Charlie Neyelle, upon joining the working group and technical working group as community coordinator in June 2003, who began to relate the story of the Water Heart from community elders.[137] Instead of simply coordinating the community side of the planning, Charlie saw himself as working between key elders in Délı̨ne and scientists and managers from outside the community: “so I was stuck between, and I found myself a ‘liaison’ (Both: [chuckle]) - I work closely with the scientists and then I work close with the elders” …[so that]… "standing right between there, there's no argument."[138] Over the course of two elders meetings prior to GBL workshops, he was told many important things about GBL and its relationship to the linkages between the land and people (Hamre 2004). As a result Charlie's informal role was to make sure that outside working group members understood the story of the Water Heart and its implications for GBL management. In the process a Sahtugot'ine habitus, the taken-for-granted, shared meanings and behaviours of the Sahtugot'ine people, began to be inadvertently explored.[139] As Bourdieu and Wacquant (1992) remind us, "the habitus contributes to constituting the field as a meaningful world; a world endowed with sense and value, in which it is worth investing one's energy" (P.127).

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[136] While using conventional planning terminology such as ‘framework’ and ‘planning’, early GBLMP documents “confirms the elders’ assessment that the organizations, agencies and boards represented on the GBL Working Group must work together in managing GBL” (Nesbitt 2003a). The aspects of the framework that were laid out from the first workshops in 2002 and 2003 are premised on the interests of the working group, and roles, communication, and the context within which the plan would be developed and moreover specified in the GBLMP principles.

[137] Cruikshank (1998, 2005) tells us that in aboriginal cultures, stories, narratives, or prophecy narratives are passed on from one generation to the next as oral traditions, which frame explanations about the social world.

Telling a story, however, is not immune to the politics from within the story teller's community. Although the story of the Water Heart was told to the GBL working group by the elders through Charlie, it was not formalized in management planning processes until community leaders agreed upon its use. Over the course of a number of elders meetings, held before all Délįne workshops, discussions over the value of telling of the story took place before a final decision and further use of it could be made.

> KC: So I guess the more time they [outside scientists and managers] spend working with people from here, the better chance they have of making better plans? (Respondent: Yeah!) Because they understand not only the people but also the lake and…
>
> Respondent: …Everything! They have to understand it - one good example is the Water Heart … I brought this up on the Great Bear Lake Management [elder's workshop] and I said… in Slavey I told the elders: we should keep this secret but they said 'what about in the near

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[138] Interview transcript.

[139] In order to avoid confusion, habitus includes individual as well as social habitus as a collective phenomenon (Jenkins 2002, Raedeke et al. 2003).

> future. There's gonna be a whole bunch of activities and development in Great Bear Lake…if we said that this is the Water Heart that keeps the water alive, fresh; we can probably agree on protecting the lake…' That's why it's on the map now, the water heart.
>
> KC: So originally you didn't think you should talk about it? (C: Yeah) And now you think it's good to explain it?
>
> Respondent: I think it's good because you could tell [the] Canadian public that, you know, a lot of people think water's water. But there's water hearts in each lake that keeps the water alive but if you kill that heart by pollution, the heart dies. That was told to us by generations and generations.[140]

The Water Heart was recognized as a powerful tool in altering people's thinking about resources and management; powerful enough for elders to warrant taking it out of its intended context and risk losing its cultural significance. For the Sahtugot'ine the story was the basis for guidance on respectful use, or management, of the land. Shifted in context, the story took on metaphorical significance that was not unlike Western conceptions of ecosystem based management. Shared understanding within a practical circumstance led to the connection between oral history and planning by members of the working group.

"The Water Heart: Why This Management Plan Is Necessary"

The significance of the Water Heart is best illustrated by the above title, which is used to introduce a key section in the final management plan (GBLWG 2005b:29). Délı̨ne elders deliberated that the Water Heart story is necessary to the working group's understanding and to the management plan's impact. The result of the decision and its application was a perceptible shift in planning thought and process. From the beginning, the elders were the acknowledged leaders of the planning process and directed the use of the story to guide the plan. The facilitator, working to understand how planning and culture are interrelated, pursued this cultural planning process. Much like the transmission of traditional knowledge, the Water Heart story was repeated in consecutive workshops among elders, Délı̨ne leaders, and other working group members.

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[140] Interview transcript.

The story of the Water Heart illustrates what the Sahtugot'ine refer to as a universal law (see figure 12). Elders in Délı̨ne assert the interconnectedness of all things including people; aboriginal and non-aboriginal alike. This includes a responsibility to care for the world in which people live, in particular GBL as "the lake is a living thing" requiring protection of its watershed (Hamre 2004). The universal law is thus a respectful balance between the Water Heart sustaining the watershed of GBL and humans who use its resources. People in turn have an ethical responsibility to sustain the Water Heart by treating it and other beings with the utmost respect. This concept of interconnectedness was extended to socio-political relationships. From the first meetings between Délı̨ne leaders and outside agency and organization representatives, community members made it clear that the exclusion of the Dene from decision-making and moreover the imposition of laws upon them has created an unhealthy relationship (GBLWG 2005b).

The Water Heart:

The elders of Délı̨ne have passed down a story through many generations. In times past, their spiritual teachers were often "mystically tied" to different parts of the environment: some to the caribou, some the wolf, some the northern lights and some the willow. Kayé Daoyé was one such person. He lived all around Great Bear Lake, or "Sahtu" in the Slavey language, but made his home primarily in *Edaiila* (the Caribou Point area), on the northeast shores of the Lake. Kayé Daoyé was mystically tied to the loche [ling cod or burbot]. One day, after setting four hooks, he found one of them missing. This disturbed him — in those days hooks were rare and very valuable — and that night he traveled in his dreams with the loche in search of the fish that had taken his hook. As he traveled through the centre of GBL, he became aware of a great power in the lake — the heart of the lake or the "water heart" [*Tudza* in North Slavey]. Contemplating this heart, he became aware that it is connected to all beings — the land, the sky, plants, other creatures, people — and that it helps sustain the entire watershed of GBL (as told by Charlie Neyelle, in GBLWG 2005b:29).

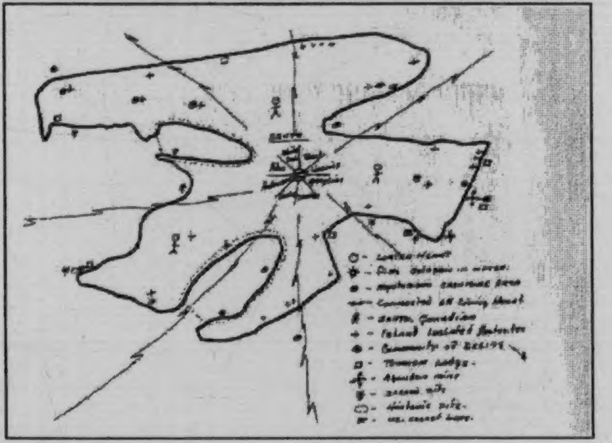

Figure 12: The Story of the Great Bear Lake Water Heart (Source: GBLWG 2005b)

During all the workshops that I attended, Sahtugot'ine leaders and elders re-iterated their objective in assuming a strong role in a new relationship. The community understanding of the relationship was clearly stated and conceptualized for outside representatives (Figure 13). This diagrammatic approach is similar to common representations of co-management in that it attempts to make use of multiple knowledge systems.[141] Délı̨ne leaders saw the collaborative efforts within the management plan process as an opportunity for all three levels of government to work together in the application of universal rules (GBLWG 2005b). In order to make the association clear Charlie presented both diagrams - the Water Heart illustration (from figure 12) and relational triangle (figure 13) – side-by-side at a Délı̨ne GBLWG meeting. The spiritual and biophysical connections between all living things in the Water Heart story, and the social and political interconnections between governments were seen as critical. Charlie stressed that the "connections can't be broken or it [ecological integrity and human relationships] will die."[142]

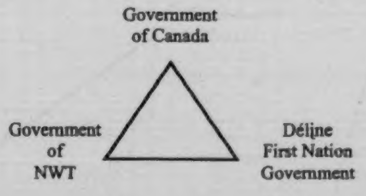

Figure 13: Délı̨ne early conceptualization of relationships in community planning. (Source: field notes)

A dual spiritual-practical meaning of the importance of the lake and resources was emphasized by Délı̨ne leaders in both the GBLMP and Sahoyúé-ʔehdacho cases.

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[141] I return to this simplified relational diagram in chapter eight. Anthony Charles (2007:90) illustrates a similar triangle but with government participation, community participation and harvester participation at the three points as integral to community based co-management. This relationship is a means of self-control in which community moral suasion and social mechanisms act to induce compliance with resource management regulations and overcome incentives against conservation.

[142] Field notes.

For example, the culturally and practically significant small islands of GBL were not part of earlier Sahtu regional land use plans. Délįne leaders and elders however were adamant that they receive conservation measures as part of the cultural landscape. *Du K'ets' Edi* are the small islands around Great Bear Lake that are understood as sentinels or guardians of the Water Heart while also giving practical and navigational guidance for safe travels (see figure 14).[143] When traveling across GBL respect for the value of these islands are reinforced through the stories and giving of gifts to the Water Heart (Hamre 2004, Délįne First Nation 2005). I was part of a trip across GBL in 2004 in which the experience clarified the practical value of these memoryscapes:

> *Five of us left Délįne in two 18-foot Lund aluminum open boats on a trip that would take us over 300 km to the other side of GBL. Leaving under clear weather the boat half full of 5-gallon jerry cans of gas and the other half with supplies and camp gear, we traveled across the open water with Morris aiming for islands so far away that we couldn't even see them. These islands, sometimes found along the shore and sometimes out in the middle of the lake, were known places of safety, emergency fuel caches, resting spots from long hours in the boat and importantly, part of the story-based "internal GPS" (as Morris jokingly called it) for traveling on the lake. With our boat at rest out in the open water, we dipped our cups into the lake for a drink of cold water. Feeling amazingly small but safe on the flat calm expanse I listened to Morris explain the significance of paying respect to the lake. I found a 'toonie' [two dollar] coin in my packsack and dropped it over the side of the boat watching it fall straight down into the dark waters wondering how many others have done the same. After resuming the endless skim over the water surface, we searched the horizon looking for the outline of Łuayúʔehda duwela - George Island, our first of the Du K'ets' Edi or Sentinal Islands. Under clear skies these islands were well-appreciated resting places for shore lunches and appropriate for listening to the stories of how they were created and now used while out on GBL. In bad weather, knowing where they*

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[143] Du K'ets'Edi are "the islands taking care of themselves" (GBLWG 2005b:79). The islands are used strategically by the Sahtugot'ine primarily for safety purposes when traveling on GBL. But they are considered to have mythical significance, formed when mythical beings turned into islands when crossing GBL. In fact, some Du K'ets'Edi require special acts of respect when passing them and are considered to have associated supernatural powers. Du K'ets'Edi are important for their educational value and the transmission of Sahtugot'ine culture between generations (GBLWG 2005b). The islands are therefore of cultural, practical, and educational significance.

> *were in relation to others could make the difference between life and death...*
>
> *...On our return trip, I experienced this first hand. Leaving Port Radium for our return trip back across the lake we crossed 70 km of open water in good 'midnight sun' weather before making camp to rest on a rocky treeless island. Overnight, a major storm developed and we were forced to quickly pack up and leave the unsheltered island. With the storm upon us Morris guided the boat through rough open water in zero visibility. Islands were visible only as hazy outlines in the fog and looked to be the same as the ones we had just passed. The storm kicked and in our tiny open boat we traveled along the troughs of massive 15 foot high 'roller waves' looking for the next Du K'ets' Edi to guide us to safety of the sheltering bays of McVicar Arm near Sahoyúé. This storm was so severe that we were forced to wait for three days at an abandoned lodge before continuing on. In the safety of the camp waiting for a break in the weather when we could make our way to the next Du K'ets' Edi, I gained a new found and deep respect for the islands and their cultural and practical value in traversing such potentially dangerous waters. I asked Morris as we were navigating through the series of islands how he knew where to go; he said every island has a story in relation to others. These stories were repeatedly told to young men as part of a storied, visual-mapping training.*[144]

The story of the Water Heart and *Du K'ets' Edi* represented a new perspective on management planning. It also introduced uncertainty from non-aboriginal members on how exactly to use it. For example, an initial response to the Water Heart was to suggest that "... [t]he 'heart of the lake' will be specifically designated as a 'no take' (i.e., no fishing) area, with no mechanized access allowed..."[145] While quickly rejected after discussions about the Water Heart's significance, it suggests that different ways of knowing were not easily understood in technical planning processes.

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[144] Field notes.

[145] GBLWG member's "Proposed additional principle, DRAFT October 5, 2003"

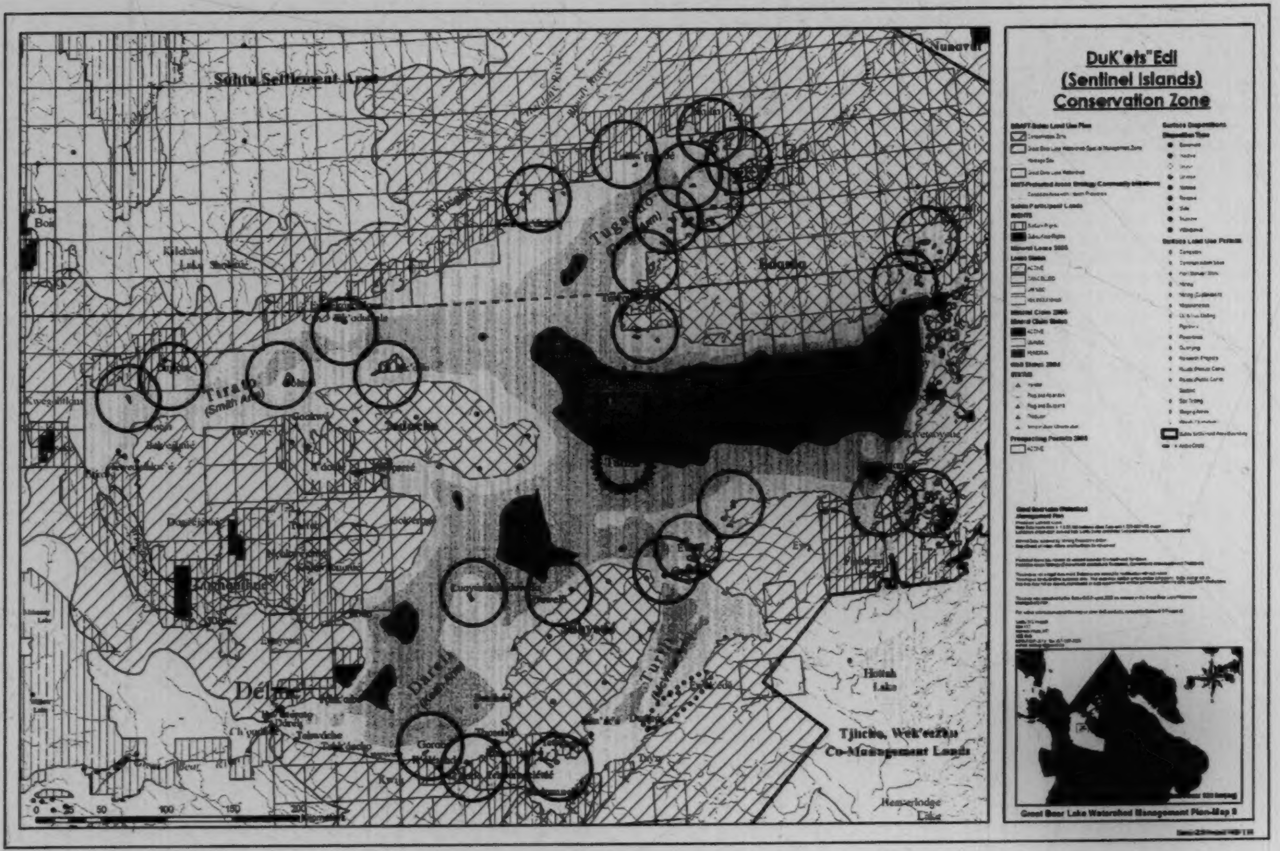
DuK'ets"Edi
(Sentinel Islands)
Conservation Zone
Sahtu Settlement Area
Nunavut
Hottah Lake
Tłįcho, Wek'eezhii Co-Management Lands
Delta
Great Bear Lake Watershed Management Plan-Map 8
0
25
50
100
150
200

Figure 14: Distribution of *Du K'ets'Edi* - Sentinel Islands
(Used with permission: GNWT Sahtu GIS Project 2007)

Members of the SEWG working on the protection of cultural landscapes found similar discrepancies: "when we first initially started with Sahoyúé and ?ehdacho…I found that a lot of the community people just didn't understand us and we didn't understand what they were meaning…"[146] Any practical understanding would only come about through an exploration of Sahtugot'ine habitus in relation to social context. As Charlie explained to me after one Sahoyúé-?ehdacho workshop, the Sahtugot'ine idea of treatment of the land is not a technical management process but rather relational and deeply enmeshed through intertwining stories of the land, animals and people.[147]

Prophecies and Planning

Within the GBLWG and SEWG, stories were rarely told without mention of GBL prophets or their visions. The Sahtugot'ine cosmology is supported by elders who pass down a system of Dene values, beliefs and codes of conduct to following generations in which oral narrative is the primary method of transmission. Central to this worldview are several prophecies about the future based on the visions of key elders throughout Sahtugot'ine history. Respected Sahtugot'ine elder and author George Blondin (2006) wrote that a prophecy is a "holy medicine power…[meant to] teach people how to live a good life" with respect to the earth (2006:90) and is told to get "people ready for something that would have great impact on their lives" (1997:10). From a NRM planning perspective, the GBL prophecies are understood not as what will happen but as guidance and warnings of what might happen in the future if people do not change their relationship with the natural world (GBLWG 2005b). For western educated Sahtugot'ine leaders, the meaning was a blend of spiritual and pragmatic guidance:

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[146] Interview transcript.

[147] Julie Cruikshank speaks of "narrative as fluid, transformative, and intersubjective…but told thoughtfully and purposefully, as being grounded in everyday life and as having political consequences" (Cruikshank 1998:162).

> "that's why there's prophecies. 'Remember: always talk about it', say [elders of the] prophecies, they always bring that back in because they believe and I certainly believe, we believe as a Dene people that things are gonna happen the way things are gonna happen. It's how you choose to live in those days towards that.[148]

Discussions of the significance of the prophecies between community members and outside organization representatives led to the observation that there is a similarity between the guidance found within GBL prophecies and the predictions of environmental scientists who warn of future ecological degradation and socio-political consequences from global warming with continued current human activities. The interpretation within watershed planning was that the gradual degradation of the GBL watershed can only be prevented if both Sahtugot'ine and non-Sahtugot'ine act with "one mind" to protect the integrity of the land (GBLWG 2005b:63).

In the GBLWG and SEWG planning processes the elders related the prophecies to their belief in a universal law that maintains the connectedness of all things, the need to treat other beings with the utmost respect and the need for people (all three levels of government) to collaboratively work together. Délı̨ne's leaders, elders especially, take these prophecies very seriously. Prophet stories tacitly drove management activities, with one prophet most often referred to when discussing conventional natural resource management. Alfred Taniton, one of three key elders, stated that "…whenever we start something new in Délı̨ne, the elders have taught us we start with the prophet Ayah's legends and prophecies. That is the approach we take to this..." (Alfred Taniton in Hamre 2005:34). In 2002, during discussions prior to the development of the GBL framework which was chaired and facilitated by Délįne leaders, elders presented a unique historical overview of the Sahtugot'ine and GBL. Their historiography reflected the physical injuries done to a living being. The prophet ?ehtseo Ayah foresaw many activities around GBL such as seismic cut-lines: "like portages cut all over the land" and oil and gas extraction seen as: "the skin of Mother Earth being ripped everywhere, and her blood being sucked out."[149] Elders further related how Ayah saw all the lakes in the watershed dying, with GBL being the only lake left with fish (Hamre 2002:8). Before industrial development or world news arrived in the North, prophetic visions and stories were being related by the Dene (Blondin 1990). The expected gradual advance and negative impact of development on the Sahtu region was illustrated by visions of the imminent degradation of other great lakes in Canada, decline of forests, elimination of wildlife species, and the scar-like spread of roads in the Canadian south (GBLWG 2005b). These visually extreme stories influence the Sahtugot'ine habitus and, told and re-told, serve to remind people of the base significance that GBL and its watershed as a subsistence 'freezer for the community'.[150] The idea of the land as a freezer or deep freeze suggests a reserve of animals and plants for Dene use also a Sahtugot'ine responsibility to ensure its viability through time. In this sense it is a resource that requires great respect and accordingly affects how the land is treated, maintained and so managed.

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[148] Interview transcript.

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[149] As noted previously ?ehtseo Ayah was a revered and influential prophet in the Great Bear Lake region. Ayah was known for his prophecies of great demand for the underground resources from the surrounding land and the clean water of GBL leading to disastrous impacts on the lake and people.

[150] The idea of GBL as a deep freeze for Délįne past, present and future is a phrase that was often personally told to me by Délįne people. The metaphor originates from George Kodakin in the early 1970s, one of Délįne's most revered chiefs and key Sahtugot'ine spokesperson to the Mackenzie Valley pipeline Berger Inquiry (Asch 1989).

The linkages between the Water Heart, the role of Dene prophets and a Sahtugot'ine worldview within a process as technical and often bureaucratic as a land use planning exercise is clearly difficult to bring together, let alone reconcile. As one visiting Gwich'in elder, who was also a co-management board member, concluded after trying to summarize the significance of prophecies and oral histories in the planning process, "a lot of the stories from our elders are bullshit to you people, but they are true. It's pretty hard to believe them, but I do."[151] Despite this difference, an alternative conception of land management as a holistic entity resonated with many outside managers and scientists as to the reasons for their choice of profession. A government employee told me that in the midst of day to day formal management realities,

> what keeps me going is those stories from the elders because you can often get mired or bogged down in the bureaucracy of your job, your role and responsibility there....those stories often are the 'whys', you know, why? Because they have value...whether it be berries or wildlife.[152]

At the same time oral histories drive home the need for a process in place that not only recognizes the need for shared understanding but also a mechanism for strengthening that understanding with other people. As one non-Sahtugot'ine member of the working group explained,

> they're talking about this watershed as a living organism. They're talking about the whole concept of the Water Heart...and about their responsibility for the world right? They have to be given the opportunity to act out that responsibility. So those concepts are given

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[151] Field notes.
[152] Interview transcript.

> much more - in that [GBL] plan - much more emphasis because *they wanted the emphasis there.*[153]

The Role of Stories in Natural Resource Management

This section explores whether oral traditions are a way of offering what Cruikshank (1998:137) calls an "historical consciousness" to overcome contests of legitimation. On a practical level, stories, properly presented, could be a conduit with which to act out environmental responsibilities. Co-management research suggests an unexplored approach worth examining is the role of indigenous narrative within mainstream NRM systems in the Canadian North (Kendrick 2003).

For the Dene and other Athapaskan peoples, primary learning comes from personal experience of doing things, combined with the prior observation of people who know how to do those same things (Goulet 1998, Cruikshank 1998, Rushforth 1992). However, another way of learning and knowing takes place that is less straightforward but nonetheless important for sharing experiences. Scott Rushforth's experiences in Délı̨ne in the 1970s taught him that Sahtugot'ine concepts too difficult to explain were more likely to be told "informally by hearing mystical, historical or personal narrative" accounts (Rushforth 1992:488). Oral tradition as an alternative way of learning is the experience of hearing generational stories from a parent, grandparent, or in the case of the GBLWG and Sahoyúé-ʔehdacho, an elder with primary experience and often supernatural experiences.[154] For example, Délı̨ne elders know about GBL and watershed from primary experiences that is shaped by the experience of their ancestors learned through oral traditions.

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[153] Interview transcript, original emphasis

[154] In these two cases, participating elders were likely of the last generation from which supernatural power (medicine power) has been bestowed. The combination of rapid historical sedentarization with reliance on modern or mixed economies has meant that people do not have the degree of connection to

Cruikshank (1998) observes that prophecy narratives give a storied form to proper social relations shaping rather than reflecting human conduct. In other words, narratives such as the Water Heart provide listeners with a way to think about how they should respond to one another within external events like industrial development and modern NRM institutions. Seen this way, oral narratives are not fixed, but rather are meant to be understood in terms of how they are used and give meaning to events. A challenge is to allow for different epistemological and legal approaches into what is normally a technical and conventional exercise. The GBL management plan facilitator, who was also an environmental lawyer, told me that

> [b]ecause the elders are so strong and they keep saying these things, we're trying to bring the elders' way of looking at the world more into the watershed management plan. So that's why every chapter begins with an elder's story. That's their concept of law. Their concept of law is different than ours. Ours is more prescriptive and theirs is more principle based.[155]

Although stories may influence a non-aboriginal person's understanding of NRM, the necessity of a connection to the legislation that formally directs their position in planning processes is required. Stories without the support of legislation and government policy render them limited in broader influence. When oral traditions can be supported by legal instruments such as land claims and self-government agreements, their influence and ability to contribute to shared understandings is expanded and empowered in the form of practical understanding.

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the land that is required for such supernatural powers to be given them (Morris Neyelle, personal communication, July 27, 2007)

[155] Interview transcript.

As mentioned in the discussion of the Water Heart and GBL prophecies, these types of narratives are not evidence or predictions of failure to cope, nor of social breakdown. Rather as Cruikshank (1998) concludes in the *Social Life of Stories*, narratives are successful means of connection with changing ideas as part of an ongoing engagement and reproduction of their culture while exploring ways to frame explanation about the contemporary world. A Déline chief told me that

> the Dene have said certain things about our resource management in the past and that's always gonna be there. You seen that picture [of the Sahtugot'ine elders] yesterday in Leroy's office? [titled] "Remember Our Words". Well I think those are the reasons why Déline's so strong…how many years we had this spiritual gathering but I think when they started that, the kids and the young adults started to learn about that. They're not so much forced but it's always there so they begin to learn...[156]

Stories represent a way to examine different knowledge concepts in the ways they connect with established bureaucratic NRM practices (Cruikshank 2005). An opening exists to explore the "generative sources of meanings" that can successfully straddle bio-physical worlds and changing socio-cultural worlds leading to flexible environmental narratives and practices (P. 257). A coherent narrative such as that presented by elders and formulated by leaders and plan writers can then become a source for personal identity and connection to a wider social group.

INTERCULTURAL NARRATIVES AS PRACTICAL METAPHORS

The idea that metaphors can be practical is somewhat confusing in that metaphors are typically seen as the domain of the cognitive. Metaphors aid our understanding of ourselves and the world in ways that no other forms of thought can (Lakoff and

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[156] Interview transcript.

Johnson 1980). Lakoff and Johnson remind us that "[o]ur ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphorical in nature" (P. 3) contributing to an "imaginative rationality" (P. 235). The place of inter-cultural narratives in the GBLMP and Sahoyúé-ʔehdacho cases may have some purchase toward practical understanding in that "metaphorical imagination is a crucial skill (i.e. bending your worldview and adjusting the way you categorize your experience) in creating rapport and in communicating the nature of unshared experience" (Lakoff and Johnson 1980:231).

Communicating how one sees the world and moreover incorporating those worldviews and related practices into a written plan cannot be guided by formal rules. During my first meeting with the GBLTWG a discussion about mapping needs was led by a government official who used the common metaphor of a funnel with a strainer as the mapping process in planning. The "data and activities are poured into the map" and what passes though reflects the management plan's guidelines; a preferred task being to technically "minimize the amount of data collected and maps developed and thus narrow down the issues to be explored".[157] During the mapping exercise a Délı̨ne elder spoke out. He expressed the need to place value on "stories before maps" in that so much Dene knowledge exists that does not use text or image based maps but maps that are built into stories; narrative maps in essence.[158] The counter-metaphor was undeniably challenging to conventional planning. It emphasizes a re-direction in thinking and is illustrative of narratives that "work to destabilize epitomizing narratives" (Cruikshank 1998:164).

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[157] Field notes.

[158] I earlier introduced this idea in my personal experience traversing GBL through the *Du K'ets' Edi* (Sentinel Islands).

The process of mapping in land use planning, easily presented as a formal and uncomplicated process of narrowing down of the options and data to a stream of solutions, is well suited to the funnel metaphor. It however also illustrates how easily context-stripped decisions can be made in that the inputs are limited as to their form. Metaphorically inverting the metaphorical funnel forces context out of the constricted tube of simplicity and back into the cultural and ethnographic text of the map (Perkins 2004). As a practical metaphor, this was done by challenging other members of the TWG to re-think how maps are used, how they might conceal significant aspects of culture, and what they can potentially reveal. One effect of this destabilizing process was that the GBL Research and Monitoring Plan was re-structured, reflecting the

> oral traditions and stories that are tied to the land [and] help to define who the Sahtugot'ine are as a people. Legends are from the land and these stories create maps for the people. Names that are given to the land often tell the story (GBLTWG 2005:46).

The government agency-led process of mapping was, in essence, a narrative that was destabilized by Sahtugot'ine stories. The instability this caused led the predominantly scientist-based GBLTWG members to stop the process and acknowledge that the value of stories and associated place names was of great significance. It was proposed that place names and stories, retaining original language and with associated context, must be included in all maps and furthermore, utilized in the planning process.[159]

The importance of intercultural narrative is to attempt to incorporate enough context into a plan so that its imaginative rationality is not lost in the institutionalization of that plan. Reflecting on the possible reaction of non-Sahtugot'ine people to oral traditions in planning, a Délı̨ne leader countered that "there's so many other ways of learning about other things. Right?"[160] The challenge to using other types of knowledge in planning however is when the resulting plan becomes integrated into larger processes and structures. The same Délı̨ne leader continued:

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[159] The development of the GBLMP was an intensive mapping process (with 11 detailed maps, some of which are used in this dissertation) accompanied by a mapping strategy: *The Use of Maps and GIS in Developing the Great Bear Lake Watershed Management Plan* (see Clark 2004). In addition, the use of accepted spelling for place names was complicated by the fact that an agreed upon method for representing the North Slavey dialect was incomplete and thus was part of the process in both the GBLMP and Sahoyúé-ʔehdacho cases.

> it's the sad reality…how do you make *other* people aware of where people are coming from and that's why…in the [GBLMP] plan I try to [provide] rationale, reasons for *why* they said what they said. This is where the weakness comes into this whole system of the land use planning, because the people that are supposedly gonna defend this whole plan have no clue about why people said what they said in this plan...[161]

LANGUAGE AND POWER IN NATURAL RESOURCE MANAGEMENT

As discussed in chapter three (co-management), the relationship between language and power in the study of contemporary NRM institutions has been shown to have a specific logic of engagement.[162] Typically, language has been presented as a way of constructing the terms and rules of management, compelling aboriginal participants in NRM to think, speak and thus act toward the land in unfamiliar ways (Stevenson 2006). In much of this analysis, however, the analytic gaze is solely upon its effects on Aboriginal people tending to obscure the symbolic power of language operating amongst actors differentially affecting people at varying times. An alternative approach is to examine language as part of what Tanya Murray Li describes as a relation of "permanent provocation between the will to govern and strategies of struggle" (Li 2007:273). Seen this way, openings and closures for potential change are continually occurring as the outcome of situated practices and the agency of variously situated people. Language is integral to such a provocation, as a SEWG working group member described:

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[160] Interview transcript.

[161] Interview transcript.

[162] Some of the best examples of the neo-colonial power of language come from the study of co-management in the Canadian and American North, the most well-known being Nadasdy (2003), Cruikshank (1998), Morrow and Hensel (1992), Kruse et al (1992), Stevenson (2006, 2004), and Fienup-Riordan (1999, 1990[2003]).

> You know this idea of the utilitarian use of the land, highest and best use of the land? And that if we're efficient in allocating the landscape to it highest and best use then as a society we'll efficiently use our resources and stuff like that. Even environmental groups still use that language sometimes when they're working on protecting an area…I think the reason they do that is, is that that's the language that again, the further you get away from the community and the closer you get to Ottawa, that's the language that decisions are made in…They can rationalize that as well and so it's partially that you're kind of funneled into wording things that way and that it keeps you thinking that way...[163]

During the development of principles for the GBL management plan it was stressed that being on the land is very different from reading about it, or talking about it, and moreover, that some knowledge is difficult to put into words let alone using written words (McCullum and Hamre 2003). This difficult part of the planning - acknowledging different ways of knowing and acknowledging that some things can't be put into words - could not be explicitly written into the management plan. It was however woven into the structure and content of the plan including narratives serving to guide the content of sections. As such, Dene principles guided a principle-based, rather than prescriptive plan, leading to a shift in the use of language as principles were explained.

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[163] Interview transcript.

Language as a permanent provocation was established from a number of fronts. Délı̨ne leaders were adamant about traditional place names on maps in the North Slavey dialect of Dene.[164] While perhaps inconsequential to some planners, community people were unanimous in its requirement as a relational starting point: "it's so important to get those place names. Remember I keep going back? *The history of the Dene people is written on their land. That's how it's passed on. That's how it's memorized.*"[165] The use of traditional place names on maps was strategically integrated with the use of the North Slavey language in Délı̨ne workshops where the majority of participants were North Slavey speakers and most elders did not speak English well enough to participate. This process allowed community people to lead planning in their own language and styles thus requiring simoultaneous translations for English people. Interestingly, an unintended effect was that it provided time and space for outside resource managers to step back and take on a greater listener-observer role. A government scientist admitted that

> from the start of the [GBLMP] process it was hard doing that. But as we went through it there were things that were learned; like having four facilitators [working] in smaller groups was better than having one large group you know…and they could discuss it on their own without having someone always translating and then you talking back to them and going back. It takes a lot longer but it's a way better way to do things especially for the elders because it's in their own language.[166]

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[164] Field notes, GBLMP workshop, Délı̨ne October 22, 2004.
[165] Interview transcript, original emphasis.
[166] Interview transcript.

During one meeting, a Délı̨ne elder stated there are many words in English that aren't yet in the Dene language. These types of locally-based workshops provide a space where those missing words "can be dealt with in translation for elders to come up with the best transfer."[167] The above examples demonstrate that language as a permanent provocation contains elements of conflict as well as cooperation.

Language with which to Cooperate

The Foucauldian concept of power is often applied to illustrate marginality, domination, and resistance. An alternative interpretation consists of the dynamic power relations within a complex and strategic situation. Flyvbjerg (2001:123), in approaching power from an alternative angle, asks "how can the games of power be played differently?" Foucault tells us that different forms and effects of communication are part of this power relation:

> Discourses are not once and for all subservient to power or raised up against it, any more than silences are. We must make allowance for the concept's complex and unstable process whereby discourse can be both an instrument and an effect of power, but also a hindrance, a stumbling block, a point of resistance and a starting point for an opposing strategy. Discourse transmits and produces power; it reinforces it, but also undermines and exposes it, renders it fragile and makes it possible to thwart it (Foucault [1972]1980).

Within anthropological study of Athapaskan peoples in the North, much has been written about *inkonze*, the way of knowing arising from a dream-based ontology and medicine power that is associated with the recursive relationship between animals and humans.[168] In the Canadian North, Blondin (1990, 1997, 2006) writes about forms of Dene power through Dene oral histories. In all the writings about *inkonze*, the focus is on its use, empowering humans in a traditional aboriginal context. Without a strong traditional connection to, and active use of, the land, this form of power is lost to the Dene people.[169]

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[167] Field notes, SEWG workshop, Délı̨ne (May 5, 2005)

[168] Inkonze (or similar expressions in Northern Athapaskan languages) is a supra-empirically derived way of knowing, ontology and medicine power, and has been much discussed in the anthropological literature. See, for example, Helm (1994, 2000) on Tlicho or Dogrib *Ink'on*, Goulet (1998) on Dene

The more appropriate concept of *ets'ine* was suggested by Sahtugot'ine elders as an explanation for "what is being used here to go forward" in current Sahoyúé-?ehdacho and GBLMP processes.[170] *Ets'ine* is the essence or spirit within living and non-living beings. It is a form of power within humans that assists during difficult times or during conflict. One elder told me "there's *ets'ine* [in] the water, you know. You can't see it but it's there and…it's working in everything."[171] In northern scholarship *ets'ine* is an unexamined concept relative to the traditional aboriginal concept of *inkonze*. Yet, the concept has great explanatory value as a relational power between divergent cultures and their understandings of NRM issues. Its power lies not in a traditional mode but rather in affecting relationships. As a form of relational power, *ets'ine* is exercised from what Foucault refers to as 'below', meaning that power exists within micropractices and used strategically by all members in the relationship.

Tha *Inkonze*, Ridington (1988) on Dunne-za *Inkonze*, Smith (1973, 1998) on Chipewyan *Inkonze*, and Rushforth (1992) on Sahtugot'ine *Ik'o*.

[169] The loss of medicine power resulting from a shift away from a reliance on a land based lifestyle was related to me by many elders and young leaders while living in Délįne. Morris Neyelle told me that his father, Johnny, was one of the last Sahtugot'ine who had a powerful connection to animals while the late Paul MacAuley of Tulita was the last Sahtu Dene to have medicine power or *ik'o*. In fact it is said that the Sahtugot'ine prophet ?etseo Ayha foresaw Paul's medicine power (Morris Neyelle, Personal Communication, July 11, 2007).

[170] Field notes. SEWG Workshop, Délįne (November 10, 2005). The spelling of *ets'ine* was never validated during workshops. As a result the word *ins'ene* was initially derived phonetically. Délįne interpreter Michael Neyelle recently suggests *ets'ine* as being more correct. He also told me that *ets'ine* and *inkonze/ik'o* are entirely different Slavey words (Personal Communication, Michael Neyelle, community translator, July 23, 2007).

[171] Interview transcript.

The word *ets'ine* is resistant to definition in English.[172] A number of interpretations suggest the concept represents a combination of power as spiritual and practical thinking.[173] The underlying conceptual strength of *ets'ine* struck a chord with SEWG members during a period when conflict in decision-making between government agencies was at its peak. A 'policy stand-off' occurred between Parks Canada and DIAND leadership over whether Sahoyúé-ʔehdacho negotiations could start before long term funding was established. The subsequent delay to SEWG progress while new funding was being sought during a federal elections process resulted in general frustration by all working group members and threatened to halt the process. Community leaders attempted to alleviate frustrations and move the process forward by explaining the situation as one requiring *ets'ine*. *Ets'ine* was the power of trust in the relationships and belief in the process that comes about from working together. A Sahtugot'ine leader later told me that:

> ...it [*ets'ine*] goes into a whole idea of that spiritual side of living: why you're doing what you're doing...That's the tools of our survival as a community, as a Dene person, you know...We can gain from trees, as much as a tree is alive; rock's alive, everything is alive and if you really think about it, it's true...there's that whole idea of respect [for] this energy force.[174]

Rushforth (1986:266) suggests that much contemporary Sahtugot'ine social organization and structure, contrary to the belief that it is no longer relevant, remains rooted in tradition. Specifically, he found a cultural requirement for interdependence of people and imperatives of reciprocity and cooperation. The idea of *ets'ine* as a cooperative power was important in keeping the planning process from failing. It explained how people can maintain periods of shared understanding even during periods of conflict.

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[172] I was told that *ets'ine* might be "one of those real old Slavey words", which the new generation or *Dene koneke*, don't use yet (Personal Communication, Michael Neyelle, community translator, July 23, 2007).

[173] Michael Neyelle also told me that *ets'ine* is similar to the Slavey word for making the sign of the cross. A Délįne elder confirms this in a story related to relying on *ets'ine* as spiritual power when confronted with unusual incidents in the bush (Sahoyúé-ʔehdacho Direction Confirming Workshop, Délįne November 10, 2005). Anthropologist David Smith (1998:425) can be read to imply that the concept originates in missionary contact and is influenced by Christianity and the concept of a soul.

[174] Interview transcript.

Language with which to Challenge

The use of *ets'ine* demonstrates that language has symbolic power (Bourdieu 1991). As one ENGO representative noted in reflecting on the community's ability to influence the planning process, "it certainly gives them [Délįne leaders] more power if they can look at it, and express it in both ways. So yeah, it's definitely to the community's advantage if they can speak their 'talk'."[175] The evolving linguistic habitus of Sahtugot'ine community leaders contributes to its symbolic power. A local leader confidently stated, "the kind of language in the [Sahtu Land Use Plan] plan is hard to understand but once we discuss it then we'll use that language to get what we want."[176]

The language used in the GBLMP and Sahoyúé-ʔehdacho planning processes shifted between states of challenge and cooperation. For some government officials the problems were quite clear and technical: "…the challenge may be just bringing some of that language together in a way that we're not inventing a new high tech management."[177] For community members, discourse without understanding was at the heart of many concerns. In opening a GBLMP workshop in 2004 an elder made it clear that it was "[i]mportant that people are listening so that community people aren't just talking to themselves [about GBL]."[178] This was based on frustration from lack of deeper understanding as exemplified by one young community leader: "you know, you think about it, they [government officials] don't listen, really. They don't listen to themselves…where their knowledge comes from…'this idea in my head', where did it come from? – [it came] 'cause you sat down and listened".[179]

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[175] Interview transcript.
[176] Field notes.
[177] Interview transcript.

Language is integral to practical understanding between people from different types and scales of organization. Language as a form of power is often subtle and is used to challenge thinking but also to increase cooperation. As such it can play a major role in bringing about larger changes to the process and structure of the developing NRM institution.[180] The way that language is used in interactions among people representing different organizations is therefore crucial to the degree of understanding that is affected. Examples from the case studies above show that crises arising out of cross-scale interactions can become catalysts for the creation of new understanding. These practical understandings can lead to wider and deeper changes in the overarching institutional settings in which they are embedded (Young 2006). As following chapters explore, social change requires that many factors be considered. Recognition of the need for social change however, comes about through reflexivity during the course of the interaction (Craib 1992, Adams 2006).

PRACTICAL UNDERSTANDING

Reflexivity is the continuous examination of our actions and the actions we expect others to display (Giddens 1984). It entails a subjective capacity to stand back from a given field and possibly transform it through "conscious deliberations that take place through internal conversations" (Archer 2007:3). In contrast to Margaret Archer's enthusiasm of the potential of reflexivity, a more restrained interpretation finds that "consciousness and reflexivity are both cause and symptom of the failure of immediate adaptation to the situation" (Bourdieu 1990:11). For Bourdieu, habitus operates at both conscious and unconscious levels, but primarily at the taken-for-granted level. Reflexivity or conscious action requires a crisis in order to dramatically challenge and change the field.[181] A compromise of sorts is needed between the often non-reflexive workings of the Bourdieusian habitus and a reflexivity that is free from structural and cultural constraints (Adams 2006, Elder-Vass 2007). Sweetman (2003) addresses a commonly-held discomfort with the concept of habitus, where reflexivity and agent-driven change only occurs during rare periods of crisis.[182] Changes to economic conditions and forms of community and relationships cause us to re-examine how we define crises. An alternative approach to practice theory is to see crises as increasingly endemic situations in which some actions are reflexively determined and others are pre-reflexively determined by the habitus (Sweetman 2003, Elder-Vass 2007, Bohman 1999, Luntley 1992). Understood this way, crises lead to a more or less constant disjunction between habitus and field. Reflexivity is not just an aspect of temporary disconnection as Bourdieu would suggest. Rather it becomes routinized and incorporated as a part of habitus. I consider this a diffuse practice thesis where crises between the habitus and field are more frequent and of a common nature than Bourdieu suggests.[183] During a perceived crisis event, reflexive and rational strategizing occurs in an attempt to alter the field, in this case the governance structures that control how natural and cultural resources are managed in the NWT. Where the habitus mirrors, or is in agreement, with the way that the field operates, then the field is likely to remain unchanged or only adjusted slightly through actions that follow suit with the field.

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[178] Field notes, GBLWMP TWG meeting, Délı̨ne (June 28, 2004)

[179] Interview transcript.

[180] Berkes et al. (2005) and Young (2002, 2006) see cross-scale connections and linkages as occurring horizontally (between groups in regions) or vertically (across levels of NRM organizations or jurisdictions). Following Habermas, they suggest these linkages as the location where cross-level interactions with increased communication and social learning can take place.

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[181] Many of Bourdieu's examples of crisis involved class differentiation and confrontation suggesting an extreme level of crisis required to affect change.

[182] Bourdieu most recently explained that conscious deliberation is "not at all" ruled out as a possible type of action in the habitus. He noted that "[t]imes of crises, in which the routine adjustment of subjective and objective structures is brutally disrupted, constitute a class of circumstances when indeed "rational choice" may take over, at least among those agents who are in a position to be rational" (Bourdieu and Wacquant 1992:131).

In early meetings between Parks Canada and community leaders regarding Sahoyúé-ʔehdacho, a lack of understanding about cultural landscapes led to a cultural crisis. Government officials concluded that they could not allow both peninsulas to be formally designated as a NHS and asked Délı̨ne leadership to choose only one. As a Délı̨ne leader recalled, one of the Sahtugot'ine elders,

> Paul Baton, got up and started to speak to Parks Canada about that. He said, right off the bat he told them 'how dare you! How dare you make me choose between Sahoyúé and ʔehdacho!' He said 'how dare you make me put one above the other!' He had a very powerful speech about making sure that our land was all equal. 'No matter if these are protected sites or not, we don't look at other areas of our land as having less value'…and the elders are very, very vocal on that and they're very aware that they will not jeopardize another project in order to gain something else from [giving up] something.[184]

The crisis that Paul Baton encountered reflects current Délı̨ne leadership concerns and is illustrative of the aboriginal habitus. The field, historically dominated by the state, requires a certain form of valuation to be used in decision-making, but the Sahtugot'ine habitus does not have an equivalent decision-making process. The resulting crisis led to a rational resistance to the bureaucratic system where forms of social, cultural, and economic capital were used to counter government management practices.[185] More subtle crises occurred challenging the Sahtugot'ine habitus. Early in the GBLMP process Délįne leaders felt that they "…were not fully involved in decision-making… [and] had lost control of the 'agenda" (Nesbitt 2003a:3). In 2004, Délįne elders were struggling over legal interpretations of "conservation." And in 2005, scientific concepts in English were said to be problematic for North Slavey translation. Using the power of their land claim however, Délįne members were able to alter, slow, or temporarily halt the planning processes in order to deliberate over issues. These examples, explained in more detail in the next chapter, illustrate a conscious effort on the part of the Sahtugot'ine to critically examine an ongoing process and provide direction on correctives as a result of perceived crises in the process.

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[183] A key benefit to considering a more agentic version of Bourdieu's practice theory is that the practical concepts that he proposes are retained for use in empirical research.
[184] Interview transcript.

In northern aboriginal communities decision making invariably requires the involvement of elders to provide an additional level of guidance and leadership. One method for increasing elder input and understanding was through pre-workshop meetings. For example, prior to a 2003 GBL workshop the facilitator met with 16 Sahtugot'ine elders in order to familiarize them with the draft management framework completed to date, and to answer questions in advance of the main workshop (McCallum and Hamre 2003). This method, repeated over the course of the following three years, created invited spaces for recognition contributing to increased plurality and re-personalized (in contrast to de-personalized) planning (Howitt 2001, Gaventa 2004).

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[185] Bielawski (2003a) explains similar circumstances. However, in the case she describes, the alternatives (or capital from which to parlay strategies) were limited, leading to a final Ministerial decision that ignored local concerns.

Practical Understanding within Structure

An implicit yet significant question that winnows out from this research is: 'how can examinations and explorations into understanding contribute to practical change?' A weakness in social scientific inquiry is the study of practical understanding that fails to address power relations (Flyvbjerg 2001).[186] As shown by the previous chapters on cultural landscapes, watershed management and co-management, bureaucratic structures are omnipresent. Nevertheless, what took place in these cases between different cultures with divergent knowledges is instructive. These cases provide some indication as to how shifting perceptions and a change in habitual orientation to action might possibly influence policy. A senior level policy official engaged in national parks system development reflected that,

> It's really easy [for us] to see Parks Canada as the expert…it's really easy to say 'we know, you don't know' and I think our early days in these alliances, there was a little bit of 'we know, you don't know'…I've been involved in the early days when it was a downloading of what we do and I've seen the shift to sort of an equal sharing…Spending two days in Délįne listening to the elders telling their stories, you realize that this isn't just a level playing field. This is a situation where all the stories are there and the ability to tell them is there and Parks Canada is really an enabler, you know. Coming to the Délįne experience relatively well along in my career, I mean I'd been sort of predisposed to sort of changing my mindset, but certainly the experience at Délįne has really done that.[187]

If practical understanding is to be considered in NRM it must be examined in the social context within which it takes place. NRM occurs within the field of governance which itself is undergoing dramatic changes in the Canadian North. Despite the presence of the Sahtu land claim and Délįne self-government near completion (CBC 2008),[188] newer forms of resource management and governance are underway including community-industry relationships (Krogman and Caine 2006). This shift suggests that aboriginal governments need to carefully strategize and plan how their authorities will be implemented within their own economic, socio-cultural, and environmental circumstances (Irlbacher Fox 2004). A Délįne respondent said that

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[186] The following chapter addresses this issue.
[187] Interview transcript.

> [w]e've done a lot of work under the Land Claim Agreement. We've tried a lotta different things over the years to try to develop different ways and different approaches to land management and how we can more or less develop local capacity here in the community to make sure that the policies and the procedures do reflect the values that the elders hold true…we wanna make sure that over the next few years, as we negotiate self-government, as we try to protect Sahoyúé and Ehdacho, that there could be some integration into the various components here so the elders can feel comfortable that the future leaders would carry forth with the values that need to be passed on. So the models that we're looking at are gonna become very important.[189]

It was clear to Délįne leaders that even with the power imparted by the land claim and self-government, the community is working within a highly structured bureaucratic and corporatist system, which they often have little control over. As one local leader observed, the feeling in Délįne was that when governments discuss the values and principles of the Sahtugot'ine "it's always gotta be under the terms of government policy [and] industry, and that we have to fit into their picture…and try to maximize our values with that process."[190] Moreover, this same individual understood that government consisted of more than neutral and rational rulings by the state but included self-government in a coercive, hegemonic sense (Foucault 1991, Gordon 1991). He reflected that

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[188] Déline is the first community in the NWT to negotiate a self-government agreement at the district or community level. These self-government negotiations began in 1997 and an agreement in principle was signed in 2003. This agreement maps out a new inclusive governance system which will address the needs of all residents of Déline through the Déline First Nation Government (DFNG), an Aboriginal public government.

[189] Interview transcript.

[190] Interview transcript.

> "...people need jobs... government throws something on the table, we either take it or don't take it but I think predominantly we've been taking it cause we've been trained that we need to run these programs and services. *Over the years we've been really modified I guess, to some degree, that the control mechanisms that have been put in place by government are so that they have become more or less our masters. But I think we wanna change that over the next little while.*[191]

As the last sentence of this quote implies, the practical understanding and desire to alter the system under which people are induced to live indicates that for change to take place, new approaches that are cognizant of these forms of power are necessary. While people are 'modified' or understood as the product of a government generated "conduct of conduct", there is also a place for "counter-conduct" (Gordon 1991:5).[192] The above quote illustrates the recognition of the forms of control but at the same time expresses a desire to change the system in place, if only so that the Sahtugot'ine are not 'predominantly taking it'.

A planning process was chosen for the GBLMP by community leaders and facilitators with confidence that "if you choose the right people and if you choose the right process, they're gonna make a good decision...we will design the planning process first and then we will start the substantive planning.[193] The culturally-informed facilitation of Sahoyúé-ʔehdacho and GBLMP represents a dynamic approach to NRM. The facilitator utilized what he referred to as the 'rapid escalation of consensus model' in working with Délįne (see figure 15).[194] The process describes in essence what other respondents expressed in interviews: how people come to work together is more significant than previously understood. A government official observed that,

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[191] Interview transcript.

[192] As a form of self-domination, Foucault refers to government as the "conduct of conduct" - the shaping of human conduct by calculated means (Foucault 1982:220-21).

[193] Interview transcript.

> you go to those things [workshops and meetings in Délįne] so you can find out who people are and get to know them and that's what Délįne wants too…They want to know who they're dealing with. They want [you] to know what they feel, [and] to be able to say 'how are your kids?'…it's important.[195]

As conceptualized by figure 15, conventional NRM planning often takes a linear approach where the decision making process is one of constant returns (Nesbitt 2006:10; see also Hagmann et al. 2002, Blann et al. 2000).[196] Often, there is an expectation of progress on a defined characteristic of progress proportional to the amount of time spent working with people with little regards to cultural norms. In contrast, a cultural approach would have early periods in planning spent learning about one another and gradually proceed toward a decision. Initial progress of such a cultural approach might be nearly flat, as graphically illustrated by line p_1 in figure 15, but over time takes a parabolic or exponential progress trajectory.

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[194] Interview transcript. This model and name was developed by the facilitator who uses the approach in facilitating, mediating, and planning within northern communities. This model is further explained with respect to consensus based decision making in northern Canada as 'reconciliation' (Nesbitt 2006).

[195] Interview transcript.

[196] See also Kendrick (2003) where she stresses the non-linear transition in caribou knowledge generation and trust building between Aboriginal people and wildlife managers.

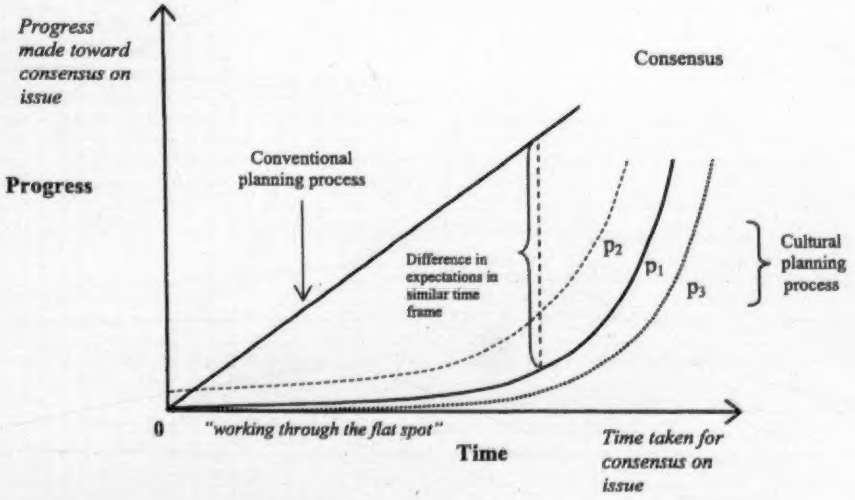
Progress made toward consensus on issue
Progress
Consensus
Conventional planning process
Difference in expectations in similar time frame
p₂
p₁
p₃
Cultural planning process
0
"working through the flat spot"
Time
Time taken for consensus on issue

Figure 15: Rapid Escalation of Consensus Model
(Source: field notes and interview transcript)

Within the "flat spots of finding consensus"[197] is where the greatest challenges lie, but also opportunities for social learning and shared understanding. A Déline dual-working group member told me that it is a challenge to find an approach that can accommodate the different understandings and practices behind NRM:

> it's difficult for people [in communities] to visualize and explain this [traditional] type of resource management that the government requires, when in people's minds and eyes they know how to manage already - but how to do it in the 'government way'?[198]

Practical understanding that occurs in the 'flat spots', where progress is perceived as slow, significantly increases the subsequent rate of progress toward a decision being made or issue resolved (the latter stages of line p_1). In the final stages of a process based on this cultural curvilinear process, decisions and issue resolution have a greater opportunity to be made rapidly than the linear model suggests because of the effort that went into early communicative processes. Heightened awareness of alternative conceptions of the issue and potentially increased understanding may develop over the course of initial stages of planning. Perhaps more importantly, issues and conflicts can be addressed early rather than later when decision-making is influenced by impending deadlines or other structural limitations.[199] The time and effort spent during the flat spot may also be the difference between a process coming to fruition and it falling apart due to conflict arising from lack of inter-subjective relations. In other words, the linear line of progress may hide inter-cultural issues and conflict that the curvilinear trajectory more realistically encompasses.

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[197] Interview transcript.
[198] Interview transcript.

A significant aspect of this model is in the area of greatest difference between the linear and curvilinear lines: the difference in expectations for progress on a given aspect of the issue. Even after working through the low progress areas or flat spots, the mid-point period of time in the process may still be perceived of as showing little progress toward an objective. What is not evident by such a straight line approach is the level and quality of inter-cultural understanding that is gained by the time a decision is made. One benefit of this approach is the potential development of future NRM relationships and projects resulting from social learning through effort taken in working though the flat spots. The cultural approach might be of greater future value than if only evaluating it from the results of a single planning event. Participants in the working groups recognized that they would likely be working together in the future. For example, the GBL working group, while struggling with the issue of conservation areas in the midst of examining caribou protection measures *and* community economic development activities, recognized that a major caribou rutting area required special protection.[200] Many of the same people from these case studies began a new project through the NWT-PAS to start formal protection for *Edaiila* (Caribou Point) on the east shore of GBL (see figure 11, chapter five). I suggest that this future process can be shown by a shift of the cultural curvilinear line to the left (p_2), with a shorter period of time required to work through as practical understanding has been increased from previous projects. For example, a GBLWG member told me:

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[199] See for example, Bielawski's (2003a) account of the rush to complete requirements for an Environmental Impact Assessment within a 60-day Ministerial imposed deadline regarding a diamond mine on Dene lands.

> I think it would be relatively easy for me to go back in and work again in Déline on a project because a huge amount is just simply relationship building…In terms of the first community meeting for the Great Bear Lake watershed [plan, that] was basically the community just flinging mud at particular federal government departments.[201]

Of course new issues would likely surface requiring the negotiations and social learning that take place within the flat spot of planning. One converse scenario is that more time is required for working through the flat spot (p_3). However this extended period may also increase the rate (slope) of decision-making processes in latter stages. The point being that increasing the relational and interpersonal effort in early stages can result in decisions being made or objectives attained in the same amount of time as conventional methods but with increased long term benefits for practical understanding and future projects. On its own this model is subject to serious challenge borne out by much critical social scientific research in NRM, particularly where power relations are skewed.[202] The following chapter addresses this limitation.

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[200] The rut, or mating period, is the autumn period when male and female caribou gather in one area. The intent was to provide greater protection for the Bluenose East herd in addition to Tuktut Nogait National Park to the northwest, an important springtime calving ground.

[201] Interview transcript.

The basis for this model originates in the subtle process of consensus building that is manifest in many aboriginal cultures. As a result, an inter-cultural planning process is characterized by a respectful tempo in which all participants are provided an opportunity to speak within a careful examination of the issues and ideas (Nesbitt 2000). As an aspect of practical understanding, "people come increasingly to understand each other and they furthermore come increasingly to influence each other so that the 'culture of the table' is formed and they learn from each other."[203] The above quote stresses a reflective and flexible approach within collaborative planning where assumptions on roles taken, methods used, and objectives are examined throughout planning stages (Nesbitt 2000). The above quote also implies (through the use of 'table' – referring to a negotiation table) that groups consists of a number of people with different views, interests, status and different capacities to exercise influence, not always leading to shared or social learning. Nesbitt further suggests that planning as a negotiation process initially requires examining the participating groups' mode of understanding the natural environment as a way of finding common positions among participants. The objective is then to work toward a common culture amongst members.

The above model suggests the need for continual review within NRM processes. This includes community opportunities to review the work done to date and correct the process trajectory if needed. In the GBL and Sahoyúé-ʔehdacho working groups, presentations to the larger community, open houses with government and ENGO members present, and organized elders meetings prior to meetings (as well as on an ad hoc basis), were integral to the review and reorientation process. The strength of this method is that a strict observance of time becomes secondary when people are engaged in accomplishing tasks of high socio-cultural significance (Pickering 2004). In reflecting on the time and social space required in community planning, a Sahtugot'ine interviewee expressed the difficulty in working through the flat spots:

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[202] See Schusler et al. (2003) for one such example.
[203] Interview transcript.

> you talk to the elders and you read between [the lines]…you listen to what they don't say as much as what they say…it makes it really frustrating for [co-management] board members like myself sometimes. You almost play a detective trying to figure it out but…[t]hey want it to come from you because a lot of times that's how you gain information and that's how you transmit information...[204]

The rapid escalation of consensus model is a way of thinking about new approaches to planning. But it could also be interpreted as a relational model for working between cultures that are epistemologically and ontologically divergent. Taking an approach that brings in narratives from both aboriginal, as well as non-aboriginal experiences into the early flat spots might be an opportunity to address complex human issues of trust and humility, and at the same time challenge resilient orthodoxies (Kendrick 2003). This was confirmed by a Délįne leader who told me that

> they [government managers] have their own principles that they have to be accountable to and…they have a pretty clear mandate based on their documentation and their policies and their structures and all that. They've been educated, raised and methodically been put in a position that makes them think within a box…and that's one thing us aboriginal people talk about quite frequently is that there's a different way of

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[204] Interview transcript.

> doing things. There's a different way of looking at the land, looking at the life, looking at water; and for a lot of these government officials, the light bulb really hasn't come on yet. We've been trying to educate them about cultural landscapes and we understand it but we have a hard time also putting that experience on paper...[205]

In the socio-political context of the Sahtu - a post-land claim and pre-self-government era - many of the previous economic and political impediments have been removed making social change a more realistic endeavour than in many other regions. A working group member observed that

> [p]eople who couldn't previously cooperate because of power imbalances are, within a land claim agreement, finally liberated to cooperate with each other and it's a wonderful opportunity for them and a lot of them seize it. A lot of them can't take it and they take off, they leave. It doesn't fit within their mindset.[206]

The concept of practical understanding is founded on pragmatic action and ethics (*phronesis*). As the above examples demonstrate however, it requires personal effort to extend one's understanding as well as epistemological flexibility to fit within community and government agency's practices.

Giving "Good Weight" to Practical Understanding

This chapter has shown how in GBLMP workshops and later in the Sahoyúé-ʔehdacho process, oral histories, stories and traditional metaphors were used practically to guide the cases direction and resulting plans. As the Sahoyúé-ʔehdacho process under the NWT-PAS progressed, the use of metaphor and story were increasingly used to emphasize and direct thinking around cooperative management of cultural landscapes. For example, the Facilitator's Report entitled "One Trail" on the Sahoyúé-ʔehdacho Directions-Confirming Workshop in Délı̨ne stresses the elders' frustration with straying off agreed upon political course and insistence that workshop participants take a unified approach toward the protection of the cultural landscape.

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[205] Interview transcript.
[206] Interview transcript.

A far back as 2002 Délı̨ne elders Alfred Taniton and Paul Baton used prophecy stories about GBL in what one SEWG elder referred to as giving "good weight" in the process.[207] Whether weighted heavily in influencing people's understanding or in the decision-making process, time/history, stories, metaphor, and different knowledges all played a part in the practical outcomes and decisions of the planning processes. As noted in a GBL working group discussion, the elders in the working group set a very high standard from which the rest of the group was expected to follow.[208] Their stories in the GBL management plan were meant to remind others of basic Dene principles and values, and as well, animate and shape the foundation of the management plan.

Finding the Right Fit

There was an explicit awareness amongst Sahtugot'ine leaders and government officials that what happens within the GBLMP process had to correspond to future legislation arising from community self-government.[209] At the same time, finding the right fit within existing federal legislated requirements was not without tension as one federal government participant noted:

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[207] Interview transcript.

[208] Field notes.

[209] Field notes. GBLTWG Meeting, Délı̨ne (June 28-30, 2004).

> It's really, really hard because Délįne's always wanted just to protect Sahoyúé and ?ehdacho…what's really hard in my job is to find the right fit into those pieces…I think what frustrates the community and which is really difficult for me to do is come back [to Délįne] and then say 'okay well you need more of this or you need to do more of these [resource assessment] studies' and they're like why? …it's because we have to, the law says we have to and so they don't like it but you say 'do this and then you'll get that'…it's not easy going back to the community and then it's not easy going back to Parks Canada and saying well they just want to protect it and they're like 'well we can't'. And so you're in the middle kind of going back and forth.[210]

In order to find a comfortable fit between different understandings of NRM, stories and metaphor were used to narrow the fissure between western science and traditional knowledge so that voices could be heard from either side. A Délįne leader's reluctance to publicly reveal the story of the Water Heart, which was culturally significant to the Sahtugot'ine, changed after talking with the elders and understanding that "it may help them [non-aboriginal people] to better understand the need to protect the lake."[211] The need for fit was responded to by some government departments. Interpreting government agency actions, a regional co-management board member told me

> "they [DIAND] said 'okay how can we do it in Délįne the way Délįne wants it?' …they involved as many people as they can not only in government but certainly our Board as well…They did it over three years. Ken, how many government departments would even think about something that's gonna last three years, especially a management plan cause they don't [typically] see the value in it; but the value is *huge*.[212]

The need for fit and the desire to give good weight are more than just empirical metaphors. These turn of phrases indicate that practical understanding has a role to play in NRM institutional development. Unfortunately that role has not been spelled out very clearly in historical NRM practices.

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[210] Interview transcript.
[211] Interview transcript.
[212] Interview transcript, original emphasis.

Practical Understanding Across Bureaucratic Landscapes

Tim Ingold (2005), re-thinking his concept of dwelling perspective, questions whether increased understanding of place amongst different people can "accommodate struggle, defeat and closure"; in essence, fields of power (P. 503). Indeed, no matter how much awareness and understanding is realized through a culturally attuned planning process, structural constraints often delay or even prevent progress. Especially in community-based processes where planning takes place primarily at a local level, outside managers and scientists still work within bureaucratic structures that historically have proven resistant to change. In the Canadian North, the close relationship between communities, governments and non-governmental agencies in terms of working closely together results in ubiquitous bureaucratization. As one dual GBLWG and SEWG member told me:

> I mean coming back [from Déline] Monday morning in the office, I often don't feel I have time…to process everything that I've sponged in. You know, there's all this information, all these impressions, everything that I've collected in my head and I just have to go right back to work and I have to go right back *to this process that's ticking along.*[213]

A DIAND official noted that "the closer you get to protection, the further away you get from the source."[214] In other words, as Déline representatives work with government and ENGOs for the legislated protection of cultural landscapes, it increasingly takes them to Yellowknife and Ottawa to where political power rests and where contextual understanding is often limited to briefing notes. Working within a historically bureaucratic government system, the role of practical understanding is limited in that "in terms of how the overall system works and everything, it's still [like] squeezing it through the steps of the process."[215]

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[213] Interview transcript, emphasis added.
[214] Interview transcript.

Limited understanding of the contextual landscape in NRM planning contributes to an inadequate understanding of funding needs and co-management opportunities. A SEWG member described this, noting that: "all they [government agencies] can see is a square peg in a round hole from my perspective. They don't get why it's important and they can't prioritize it in their funding and it's frustrating to watch that lack of understanding."[216] Yet, for natural resource co-management to succeed in which "we are to think and learn in an adaptive manner, then world views or metaphors that add to the range of human integrative and complex thinking need to be supported" (Kendrick 2003:263). Complex analyses also require, as Ingold (2005) tells us, structural considerations that interpretive approaches cannot address.

CONCLUSION

What I consider 'practical understanding' occurs in a social context and as such has great potential for providing ways to improve NRM practices. In the two cases explored here, opportunities to explore divergent epistemologies and create new NRM arrangements were discovered through narrative, metaphor and language. The GBL and Sahoyúé-ʔehdacho working groups were shown to operate within a field of power relations, yet members still developed a shared understanding of one another's conceptions of resources and management. A space for exploring and exchanging one another's perceptions and understanding was created within local and governmental power dynamics. This in turn contributed to a factor that is crucial for successful planning, that of practical understanding. The concept of practical understanding focuses on the intersection of beliefs, values and interests in NRM processes. Practical understanding was seen as arising from increased time commitments and meaningful interaction among people early in NRM planning. This was illustrated by a relational model where decision-making is not a linear process but rather a slow process requiring greater initial effort in developing practical understanding than typically seen in conventional NRM processes.

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[215] Interview transcript.
[216] Interview transcript.

It would be convenient however to imply such a process as being significant without examining how practical understanding is applied and operates in NRM institutional development. The empirical evidence from the social learning literature has demonstrated the problems in failing to do so (Muro and Jeffrey 2008). Implying shared understanding in NRM as the impetus for social change without considering the role of conflict and competition with others may be missing an important part of the larger NRM puzzle. The next chapter extends the analysis from where most research in this area ends. I examine the practical implications of shared understanding in community based co-management acknowledging the "irreducible plurality of standpoints" (van den Hove 2006:11). Building from this current chapter, I explore how, in the face of institutions which confront individuals in their everyday practices, "...is it possible that subjective meanings become objective facticities?" (Berger and Luckmann 1966:19).

Chapter Seven:
Institutional Bricolage in Natural Resource Management

INTRODUCTION

Kerry Abel, in the second edition of *Drum Songs: Glimpses of Dene History*, argues that the Dene are "active players in the game of history and have worked to maintain a sense of their unique identity in spite of pressures that at times seemed likely to overwhelm them" (Abel 2005:xviii). She observes that the

> Dene aptitude for creative adaptation…has permitted the survival of a sense of self and community through very different times and challenges [and furthermore,] [f]aced with foreign political, economic, religious and social systems, the Dene have attempted to choose what they found desirable in those systems and reject what they didn't like (P. 265).

I suggest that this aptitude for adaptation is reflected in Délįne's post-land claim experience with mineral, oil and gas development, conservation, watershed and land use planning, and community self-government. In Délįne I frequently heard this expressed in many ways; the essence being that in order to break from a standpoint of immediacy, meant doing things differently. As a Sahtugot'ine leader explained to me, "you can't go back to 1921 [Treaty 11 signing] and say this is my land, this is my aboriginal rights. You can't. We've done that already for thirty-five years...So that's why we have [the] modern agreement…You gotta move forward. Life is changing.[217] The idea of progressive change, so central to Délįne leadership, was also of importance to people from outside the community. A senior government official indicated a desire to be an agent of the change that Délı̨ne leaders envisioned:

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[217] Interview transcript.

> Frankly, if people wanted a different approach then I would have tried to help that too. It's not about me imposing what I think is right. It's about me working with the people in the community to help them get to where they want to be.[218]

What these above moments in historical analysis, community development, and governmental NRM practice suggest, is that there is an active willingness for people to be a part of progressive social change. The historical analysis stresses that creativity, flexibility, and adaptation is at the heart of Dene culture. The Délı̨ne leader expresses the desire to move forward, make changes and be a part of society. The government official quote clearly demonstrates the power behind the ability to make changes. What is not very well explained, but is implied in the government official's quote, is how local people can overcome the many constraints to their desired objectives. Culture as adaptation, a will to improve, and power relations - implicated in these quotes - represents the starting point from which I explore power in practical understanding.

In this chapter I examine the connection between planning for resource management and practical understanding through institutional bricolage. The distinctive characteristic in these two cases is the presence of micro-strategies of power that run through them. Quite often aboriginal groups are forced to adapt or yield to existing and inflexible property rights regimes and tenure systems.[219] This chapter instead examines what happens where power is played out in a field that is on the face of it, more equitable in terms of power. Although collaboration in NRM is desirable by most people, it is inherently conflictual (Jepson 2004). Most research on NRM from an interpretive perspective acknowledges the significance of power but then tends to bracket it as if nothing can be done with it or it is just a natural part of the socio-political landscape. Instead, I examine how the previous chapter's optimism of practical understanding of NRM operates within the structured and inherently political confines of planning for natural resource use and conservation. Using concepts from institutional bricolage and practice theory, I suggest that leakage of meaning and cultural borrowing of ideas from local scales to broader scales of NRM, as demonstrated in the previous chapter, coincides with strategic action and power relations. In order to examine the application of practical understanding, I turn to the implications of socially embedded NRM.

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[218] Interview transcript.

SOCIALLY EMBEDDED RESOURCE MANAGEMENT

The concept of institutional bricolage is valuable as a conceptual departure point for exploring how practical understanding in NRM is applied. Recall that institutional bricolage is the creation of institutional arrangements from existing norms, practices and relationships through conscious action and non-reflexive practice. As a process it draws upon the multiplicity of potential resources and variability in the capacity of people to act as change agents (Cleaver 2007). It allows for deeper examination of the complexities of NRM and the social practices in which they are embedded. The concept of NRM institutional bricolage is expressed as a form of agency within structure, providing space for innovation.

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[219] For example, experiences in Northern Alberta suggest that adaptation is controlled, with limited levels of Aboriginal people's agency due to enduring political and economic structures. See for example, Natcher (2000) and Treseder and Krogman (2002).

The management of a single natural resource is complex in that decisions made are closely intertwined with management decisions made on other natural resources. As my two case studies demonstrate, conservation and economic development cannot be separated as aboriginal communities strive to maintain their cultural and economic autonomy. At the same time however, an increasingly globalized resource extraction industry is generally acontextual in its decision-making when following land use plans and federal legislation. Regardless of the new community-industry relations and decision-making processes being developed in the North, federal government agencies retain an important regulatory and resource royalty-based role in northern NRM, thereby necessitating their inclusion in community developments. Examining the cases of Sahoyúé-ʔehdacho cultural landscape protection and the GBL management plan from an ethnographic approach can help clarify how NRM is practised within such a complex socio-political context.

> *I pour my tea and grab some cookies while scanning the room to see who is here, wondering what's going to happen during this public workshop. I take a seat next to Morris on the bench along the wall in the busy hall of the Délı̨ne Cultural Centre. I'm impressed. This Sahoyúé-ʔehdacho Directions Confirming Workshop seems to have all the pieces in place for a smooth evening - the right facilitator based on what Délı̨ne and government people are saying - the right location for decisions to be made - and most importantly it will have all the right people from community leaders and elders, governmental agency senior managers, and long-standing supportive ENGO representatives. An excitement is in the air as people sense that finally, after 10 years and the loss of so many elders who fought to protect*

> *Sahoyúé-ʔehdacho, the next step - formal protection - has begun. It was only last month at a recent community leadership workshop, that the main objectives were set and understood – with Déline to take a central role in management balancing regional co-management boards and with the local DRRC, development of management capacity, economic development, and protection of harvesting rights. But at the beginning of the workshop, Leroy announces that key members of the Déline First Nation and Déline Land Corporation couldn't make it as they had to leave on short notice for an important oil and gas meeting in Calgary. 'Industry beckons' Morris says to me. The disappointment on Leroy's face is apparent. But strategically speaking, the leaders all know those oil and gas meetings can produce tangible results in a matter of days whereas these protected areas meetings and workshops have been going on for years without any substantive decisions being made – one can't blame them for going to where the higher probability of success lays.*[220]

The common phrase used by government agency officials and even ENGO representatives that 'NRM is the management of people, not resources', does not fully explain the socially embedded nature of NRM.[221] To be sure, the phrase expresses the importance of social factors in NRM and is indicative of how people understand resource management. But it only confirms the divide between nature and culture that has beleaguered the development of a truly social-ecological form of NRM (Bielawski 2003b). At the same time it implies the use of the same technocratic method under which natural resources have historically been managed. Such an understanding fails to account for the moral ecological rationality behind the purpose of the GBL working group:

> why is this plan necessary? Because of the concerns of the elders and the prophecies. The elders stressed that this plan can be changed over time, but the basic concepts must be respected (ecological and cultural integrity). The elders' role, principles and values have guided us in the past (Charlie Neyelle in Hamre 2005:37).

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[220] Field notes.

[221] This phrase was related to me in interviews as well as in working groups meetings and public events. In all cases, it was by individuals from outside Déline.

The complexities and practical implementation challenges of NRM also exist outside of Déline. For example one government interviewee noted that because DIAND is not only mandated for conservation but also northern development, it creates professional challenges for government managers working on community-based projects: "I have to build those relationships with our geologists because you can't be fighting amongst yourself and try and get a project done…"[222] Practical understanding is essential to NRM and so requires further explication of its use with respect to power relations in organizational contexts.

LEAKAGE OF MEANING AND CULTURAL BORROWING

As discussed in the previous chapter, the presentation of narratives was integral to increased awareness and understanding of alternative forms of resource management. The use of prophecies and oral history to formally guide community-government negotiations and planning had not been undertaken before and represented a novel approach for all parties involved. The comments from two Déline leaders, the first from an elder and the second from a younger elected leader, demonstrates their cognizance of the shift to practical understanding.

> In the past we never had a chance to raise our own opinion up until [the] land claim was settled… it gave us rights to make things happen for the good of community. When government members or others who come here for reasons *we would like to know exactly what they want and in return we would let them know what our needs are* so both sides can work with positive attitudes and so that's what we tell them. *We are not letting them take control of things.*[223]

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[222] Interview transcript.
[223] Interview transcript. Italics added.

> I think the Great Bear Lake Management Plan is a start, you know. It's a great start because it has identified places that elders hold great respect for…and it's gonna be, hopefully, a *roadmap to other companies, other people, other cultures, that this needs to be respected.*[224]

Despite the many observations of the legitimation of western scientific traditions in contemporary aboriginal practice, the potential for the reverse process has been under-recognized (Berkes 1999). The GBL and Sahoyúé-?ehdacho processes demonstrate how people drew on legitimizing symbols derived from both western science and traditional culture, including natural and supernatural worlds, to cognitively anchor plan contents. Institutional bricolage is premised on the leakage of cultural rules and meanings across boundaries or divides that then play a role in constructing new institutions (Cleaver 2002). The transfer of meaning contributes to the potential for transforming resource management practices. The mode of presentation of the Water Heart story in the GBLWG was a factor in the shared meaning between local leaders and outside working group members. Cultural rules and meanings embedded in oral traditions and prophecy stories were borrowed across the traditional knowledge-western science divide and applied in new situations such as GBL plan development. Elders, with the assistance of facilitation to 'work within the flat spot' of collaboration, reinvented the conventional planning process such that a common space was created that was relevant to Dene principles and oral history, allowing for increased comprehension by community members. As an "invited space" (Gaventa 2004:35), the process was transformed into a situation where power and understanding interacted to produce new results. What was initially a single purpose management plan, as part of the larger SLUP, it developed into a "multi-purpose institution" (Cleaver 2002:21). Modified from its planning origins, it became a Sahtugot'ine principle-based plan for not only managing the watershed and resources, but also for linking contemporary ideas about a desirable way of life and social practices in relation to natural resources. Anthropologist Scott Rushforth (1986), while living in Délįne in the 1970s, observed a cultural requirement for a "right way of working together" based on the interdependence of people and imperatives of "reciprocity, mutual aid and cooperation" (P. 257). This is similar to what has currently been institutionalized in Délįne as a moral rationality of *Surí Bek'ə́ Ghálatseda K'é Go Ts'erəchu*, 'working together to go the right way' (Délįne Ethics Committee 2003:15). Similarly, I explained that a contemporary interpretation of the North Slavey term *ets'ine* is valuable in re-thinking the way that planning takes place. Specifically, *ets'ine* explains how people can come to better understand periods of conflict and the requirements for spaces of practical understanding. I showed this in the previous chapter where the concept of e*ts'ine* is seen as a positive force or spirit of cooperation between working group members. These two examples illustrate a deeply embedded cultural logic at play in NRM that will be further explored as an aspect of strategy.

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[224] Interview transcript. Italics added.

The practical understanding that arises from leakage of meaning takes a prominent position in the borrowing of ideas that are compatible between cultures. The borrowing of ideas in institutional construction originates in the embeddedness of different cultures in co-management. Dene leaders in the NWT stress the need for a process where people "draw from the strength of their culture and history to maintain a strong identity based on that, while also developing the capacity to interact and live effectively with other cultures and draw from their knowledge systems and their skills and abilities" (Barnaby, interviewed in Tesar 2006:6).[225] The result of this philosophy is to mix traditional and modern arrangements in a socially-embedded matrix of institutions. The use of traditional and contemporary systems as part of NRM bricolage was demonstrated by working group members using the right cultural, scientific, and political expertise for the issue at hand. A working group member from a co-management board told me that "they [Sahtugot'ine leaders] will use whoever they can who's got expertise and knowledge in special areas. They don't mind bringing people in to help them out - we're seeing the results of it in both Sahoyúé-ʔehdacho and the GBLMP…"[226] This expertise ensured additional critical analysis of issues in a context where culturally, cooperation was a primary Sahtugot'ine norm. A territorial government working group member said that "I felt my job was to question anything and everything that people were throwing at us [SEWG]; ask the questions that Déline and the community wanted to ask but didn't know how to or didn't know if they should."[227] A community norm of cooperation was therefore balanced with a dialectical western approach to resource management. It was in the process of using the right people with practical knowledge that leverage points were found with which to stimulate a change in practices or thinking (Agar 2008). The following working group member's observation reflects what many government and ENGO people involved in the GBL and Sahoyúé-ʔehdacho processes believed:

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[225] Joanne Barnaby is the founding Director of the Dene Cultural Institute and long time board member of the Science Institute of the NWT. As a public policy analyst, her work focuses on sustainability through the use of western and indigenous traditional knowledge systems.
[226] Interview transcript.
[227] Interview transcript.

> people probably wouldn't have stayed involved if they didn't have the right attitude because we weren't getting a whole lot of credit for doing it…I think people who had a place in their heart for Great Bear Lake were sticking it out there…Most people were doing it because they care about the lake and about the community; they just see it as a special place.[228]

In much of the discourse in Délįne, elders and leaders expressed a desire to participate in resource management in practical ways. The idea of management was accepted and perceived as necessary through land use plan guidelines, co-management structures, and political interventions. However, the missing component was a physical and practical presence in management. Community members most often spoke of traveling on and using the lake and lands *as* management. It was during the GBL management planning process that a rethinking of practical collaboration in the research and monitoring of GBL took place in this vein of thought. The federal DFO, responsible for the management of waterways, fisheries, and aquatic ecosystems, established an innovative program for community-based lake monitoring. This program included the provision of a 19-foot fully-equipped boat to the local Renewable Resource Council (DRRC). Such innovation indicates an evolution and reinvention of program delivery that satisfies community, research and management needs through co-management. As a government scientist and working group member said,

> I've taken that [GBL] research and management seriously and capacity-building with the community very seriously… we [DFO] bought the boat and we re-powered it now with a larger engine. I had very much Déline in my heart and my mind as far as getting them up and running…they finally got their garage built so they got storage for the boat now. We got the monitoring program which has been going

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[228] Interview transcript.

> now - this is the third year of their unguided monitoring around the Keith Arm [of GBL].[229]

Under the new northern program, DFO scientists worked closely with Délı̨ne to increase the capability of the local DRRC to participate in monitoring and research programs. The boat is used for GBL management purposes including DRRC fisheries patrols and surveys as well as in other GBL management and ecological and cultural research projects. A federal contract with the DRRC provided employment and training for two Délı̨ne people under the direction of the DRRC and undertook a range of patrol activities on GBL. The program was designed so that both community and government resource management needs and objectives could be met. The expression of having Délı̨ne in the government manager's "heart and mind" introduces the idea that not only was ecological integrity a management consideration but DFO managers appear to understand the cultural and spiritual importance of developing alternative management practices that re-incorporate management as presence. Northern Aboriginal people have their own approaches to monitoring the land,[230] including methods of empirical observation, interpretation, communication, and changing practices (Parlee et al. 2005, Rushforth 1984, Berkes 1999). An integral characteristic to these methods is the notion of management by presence amongst those resources.

> *We were taking a break from de-limbing the fallen trees that Bruce had cut down for the cabin. We slipped our parkas back on in the -35°C stillness, dug out thermoses from our packsacks, and sipped our tea in the silence. As we talked about finding the right trees and the work it takes to get them out as long logs, the distinctive whine of a skidoo broke the silence as it came into view coming toward us,*

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[229] Interview transcript.

[230] For the Dene, "land" refers to the land, water, and resources. In Délı̨ne, "going to the bush" was the common expression used to indicate traveling on the land.

> *working hard to stay afloat through the deep snow,. Winding expertly through the dense spruce trees appeared Harry with his 10 year old nephew on the back seat of the skidoo. They waved to us as they veered in and out of the trees looking for dry wood to cut. Verna said "he really is something - always on the go and working hard in the bush, even after working all day for the Hamlet." It seemed kind of ordinary to me as most of the people I knew in Délįne cut their own wood for heating. She told me Harry didn't even have a woodstove. After we all stopped laughing at the thought of cutting wood for fun, she said "he just needs to be in the bush – he gives the loads of wood that he cuts to people." We finished our tea and then got back to our axe-work on the logs.*[231]

This practice is a form of land use as management. It is an opportunity to monitor land change naturally, take stock of the resources, and alter practices accordingly (Parlee et al. 2005). After every hunting and fishing trip, men in Délįne would gather at the Land Corporation to talk; more about what they saw and learned than what they brought home. As a form of monitoring it was also part of a larger management process relying on their presence on the land as individual managers in which broader resource management was guided by communal discussion thereafter.

Tanya Murry Li (2007:267) notes that in any government development program, "…the benevolence of a program does not excise the element of power." Although not explicitly stated, the community-led and DFO-funded GBL monitoring plan helped offset the pervasive effect budgetary restraints had on DFO activities, particularly in remote northern regions (Canada 2005). It also increased the indirect presence of the department in an area of the North that it likely could not afford to maintain. At the same time however, the relationship allowed the permeation of a Sahtugot'ine cosmology into a government system of management and enforcement that was historically perceived as overly-restrictive. The challenges in managing a lake that is remote, under a land claim agreement, and without a permanent government resource management presence, illustrates what Kofinas et al. (2007) might consider to be an unusual problem that can only be addressed through innovative solutions. Reduced government budgets and limited priorities combined with increased local demands for a practical management role resulted in an opportunity for institutional creativity. The timing was such that it also reflects DFO's new policy objective for shared and cooperative stewardship with resource users.[232] The above example of community-government relations in lake monitoring demonstrates that practical understanding can lead to creativity and innovation. Yet these activities are tempered by the social and structural forces that act behind the backs of participants (Morrow 1994). In the next sections I examine how NRM practical understanding is cast in multi-scale strategic interplay.

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[231] Field notes.

STRATEGY IN NATURAL RESOURCE MANAGEMENT

Natural resource management in practice often involves the interaction of groups with multiple knowledges and interests. In collaborative processes, groups attempt to share their knowledge and understanding of NRM while at the same time influencing the degree to which their knowledge is legitimated (Natcher et al. 2005, Singleton 2000). As northern NRM history shows, political decision-making in the management of natural resources, where the balance of formal power and decision making is greatly skewed, often results in conflict with long lasting implications.[233] Worthwhile examining, however, is how strategies play out when the balance of power is not, on the face of it, so heavily weighted to one side, or where power relationships are so complex as to make assessments of such weightings tricky.

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[232] During the GBLMP process, the federal government responded to the Canadian Standing Senate Committee on Fisheries and Oceans' *Interim Report on Canada's New and Evolving Policy Framework for Managing Fisheries and Oceans Shared Stewardship.* One of the planned policy changes was shared and cooperative stewardship. This objective is to be achieved by "promoting collaboration, participatory decision-making and shared responsibility and accountability with resource users" (Canada 2005a).

> *The three of were sitting in Peter's Lands and Resources office before the afternoon land use planning community meeting was to start. Paul, the president of the Renewable Resource Council happened to be in the office that he shared with Peter. I mentioned that I read in today's News North newspaper about uranium exploration taking place just east of Hornby Bay at Great Bear Lake. Not showing any signs of surprise or anger, Peter told me that there were permits recently issued in Yellowknife for similar work around Contact Lake near the infamous Port Radium, not far from where I mentioned the new exploration work.[234] I was shocked and looked at the other two for their response but all I got back was a 'matter of fact' acknowledgement. The first thought that came to mind was all the research and work that the Délı̨ne Uranium Team had recently completed. They had even published a book, called "If only we had known: The history of Port Radium as told by the Sahtúot'ine", that explored the environmental and health impacts of radium and uranium mining. I couldn't believe that this latest news of new uranium exploration and possible mining in the same area wasn't causing more of an outrage. What was maybe even more surprising to me was not that these types of strategies are being played out but that Délı̨ne leadership was a part of them.[235]*

The above vignette illustrates a common theme in my experiences in Délı̨ne. It shows how on the face of it, communities might be seen as easily captured by industry approaches to resource exploitation. Yet, it also confirmed to me that community leaders are aware of industry strategies and possibly using them as part of their own process for socio-cultural and economic success. For example while I was in Délı̨ne, a group of community members (mostly elders) explored for themselves the relationship between their culture and resource management. In their report that was primarily based on stories and legends, they stressed the importance of Dene Laws, traditional land use, and language. However the group also recognized the significance of "culturally appropriate and sustainable resource use...securing legal and economic rights for the Sahtúot'ine [sic], minimizing long term economic dependency, improving subsistence economy, providing local employment and education, enhancing access to health and social services, as well as advancing economic development" (Délı̨ne First Nation 2005: 25).[236] What this indicated to me was strategy as a "feel for the game" where people do what needs to be done "as an adjustment to the demands of the field" (Bourdieu 1990:66). On the one hand resource development is so highly promoted by industry and government that it reaches the point where it is naturalized by communities as a desirable option for economic benefit. On the other hand however, the levels and direction of development can be modified given the right circumstances and use of capital within communities. As though confirming the significance of strategy as a game that is played out over time, a Délı̨ne leader (who was the leading proponent of permanent protection for Sahoyúé-ʔehdacho) publicly expressed concern over a disproportionate focus on conservation in the GBL management plan by noting that "we need to be careful how we make laws; they may affect us later."[237] The way that the community saw conservation was not exclusive of economic development. The use of capital arising from the land claim agreement, self-government agreements, and industry requirements for local agreements to access land in the GBL watershed provided the financial as well as symbolic means with which to promote their interests. Economic development and conservation were used in such a way as to integrate with the community's interpretation of contemporary resource management.

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[233] See for example, Bielawski (2003a).

[234] Port Radium, on the eastern shores of Great Bear Lake, was the site of nearly continuous radium and later uranium mining operations between 1932 and 1964. For the most part, these ores were milled at the mine site approximately 265 kilometres northeast of Délı̨ne across the lake. The mine site, surrounding land and perhaps waters where tons of tailings were dropped, is radioactive yet remains important for subsistence (caribou and fish), the sport fishing industry, and spiritual purposes (Délı̨ne Uranium Team 2005).

[235] Field notes.

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[236] The report from which this quote is taken was the result of an intra-community project funded by the Sahtu Renewable Resource co-management Board and conducted by the Délı̨ne First Nation and Délı̨ne Knowledge Centre. The report was written in English and North Slavey with an accompanying plain language brochure.

[237] Field notes. GBLMP Meeting, Délı̨ne. Oct 22-23, 2004

In a diffuse practice thesis, the feel for the game consists of both rational and unconscious based actions being undertaken and dependent on the forms of capital available. During a meeting in Délı̨ne where key Parks Canada officials were in attendance to explain the Sahoyúé-ʔehdacho Options Paper to the working group and community, attempted control of the situation was illustrated by a Sahtugot'ine leader's actions at the start of the meeting:

> *Raymond placed his copy of the land claim agreement on the table in front of him. It only took me a few seconds to recognize the book as the same one he had used to explain certain aspects of the land claim to me and others in numerous other meetings. I would have thought he'd have thrown it out by now and taken a new one from the pile on the shelf. This copy was held together by duct tape along the spine and had what looked like 50 post it notes with writing on them, sticking out from different pages. The copy was so well worn and obviously used that one would think that he had it memorized and, in the process, understood its intricacies and hidden secrets. He didn't hold it up and make any statements about its legal power. Its symbolic placement there on the table in front of us seemed to speak volumes. The process was enacted as though a routine.*[238]

The placement and presentation of the land claim agreement document by Délı̨ne leaders recurred often in meetings with outside officials in Délı̨ne. As someone who understood the legislated power of the agreement, Raymond was rarely without it in meetings where governance issues were being discussed.[239] As a form of political and symbolic capital, it was a powerful moment in the vignette of the above meeting. The importance of the circumstance and use of the land claim illustrated the application of an "embodied history, internalized as a second nature and so forgotten as history" (Bourdieu [1980]1990:56). The land claim while of great symbolic importance and used to ensure all future agreements were in line with its historical contents, was not referred to often in Délı̨ne. In fact, the Délı̨ne Self-government agreement and access and benefit agreements with resource companies were more likely to be the 'talk of the town' in Délı̨ne. Despite this, the gravity of Raymond's act was not lost on anyone at the table. All the government agency representatives were silent and seemingly accepting of the symbolic act. In challenging the rules of formal meetings, the agenda was temporarily manipulated by a strategic act that was "part of the middle hinterland of cognition, neither conscious nor unconscious" (Jenkins 2002: 179). Close relations with government negotiators over 25 years and repeated use of the land claim agreement document undoubtedly produced an individual political habitus that attempts to affect change in the system but, being a product of that same system, was closely aligned with it and subject to its reliance on legal documents.

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[238] Field notes. This symbolic process recurred often, especially when new senior government officials were in Délı̨ne meetings for the first time.

Throughout the GBLWG and SEWG activities, a tension existed in which new ideas and creativity in planning were countered by the potential for the exercise of power by government officials at any moment. This was made clear by one working group member who told me that within matrices of power (Li 2007). The concept of strategy and bricolage in social practice offers a way of looking at power as interwoven through the GBLMP and Sahoyúé-ʔehdacho. But because strategy is relative to habitus, it is not exclusive of the way that people differentially understand NRM. My discussion to this point has focused on how practical understanding contributes to leakage of meaning and borrowing of ideas between cultures and its role in strategies. In the following sections I explore how forms of strategies were applied in the GBLMP and Sahoyúé-ʔehdacho processes.

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[239] In many of the discussions I had with Raymond, he often brought out his land claim copy in order to illustrate points but without opening any pages or for points that did not really need detailed explanation.

Political Engagement

Nadasdy (2005) recently described the 'anti-politics of TEK' as the limited or manipulated use of traditional knowledge in northern NRM where the outcome is the expansion of state-bureaucratic powers. As he describes it, co-management, established from land claim agreements, is entrenched as a bureaucratic institution subject to technical rather than political solutions, leaving little or no room for substantive engagement with traditional knowledge. Despite the bureaucratization of co-management, there is an opportunity for re-thinking how practical understanding in NRM can transform such institutions based on spaces for transformative power.[242] This perspective acknowledges the impact of bureaucratic resource management structures but also incorporates actions in which people react to, capitalize upon, and in various ways rationalize their responses to bureaucratic conditions. In essence it recognizes that "powers that are multiple cannot be totalizing and seamless" (Li 2007:25) and it leads to the idea of practices "playing across one another" (P. 26) to create gaps and openings in resource management practices. For example, in community Sahoyúé-ʔehdacho planning for step six of the NWT-PAS negotiations for protection, experienced Délı̨ne leaders understood that Parks Canada would send a team of negotiators with a well-versed strategy in which "they will try to slot Délı̨ne into co-management."[243] It was due to situations such as the above that led to the common belief by Sahtugot'ine leaders that Délı̨ne "should make its voice heard and be more political", for example by "using established relationships with key players in Ottawa" to ensure resource management reflects community values and interests.[244] At the same time, co-management in the North is explicitly as well as tacitly promoted by government agencies as a primary instrument of and official discourse for resource management (Nadasdy 2003, Nesbitt 2006). The contrast between the above strategies to NRM suggests that multiple political and bureaucratic processes occupy similar spaces but with different forms of engagement.

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[242] John Gaventa in the 1980s empirically demonstrated a similar hegemonic conception of power using Lukes' three dimensional power theory in an Appalachian mining setting. Recently he has expanded his conception of action to a model of multiple spaces in which to understand places of transformative power (Gaventa 2004, 2006).

My experience of the understanding of political engagement in NRM came not in a meeting room but in a canvas wall-tent on the far shores of GBL:

> *We spent the entire day traveling by snowmobile 250 km across a frozen GBL to the eastern shore at Caribou Point. After arriving in the early winter's dark the rest of the evening was spent shoveling out the deep snow for our tent site, laying spruce boughs down for a floor, cutting firewood, and setting up the tent and campsite. Lying back drowsily on my sleeping bag after supper with the airtight stove glowing and the strong winds rippling the tent's canvas, I listened to the Slavey conversations that alternated between serious stories and laughter from joking and teasing. The last thing I was thinking about was planning, politics and strategies. Raymond, propped up on his one*

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[243] Field notes. Sahoyúé-ʔehdacho Délı̨ne Negotiation Workshop, October 26, 2005.
[244] Field notes and SEWG Meeting minutes. December 16, 2005.

> *elbow, changed tone and started talking about the caribou all around us, the importance of the area to the Sahtugot'ine, and what it might look like in the future. He said that he's going with other Délı̨ne leaders to Calgary the next week for meetings with oil and gas executives. But while we're out here in the bush enjoying the land, he tells us that 'their people' are doing their homework. They had already asked who specifically from Délı̨ne was going to Calgary. Raymond said this was so they could prepare their strategy for negotiations on access and benefit agreements. This was the new reality that the Sahtugot'ine had to adjust to; no longer could leaders rely solely on a trust-based relationship. Raymond said Délı̨ne representatives have to 'think like lawyers' and use different tactics as part of the Sahtugot'ine strategy. As I added more wood to the stove I wondered how this strategy would look and play out.*[245]

Community leaders have been exposed to government methods and strategies through land claims and habitual interaction. More recently the strategies learned from working with industry have added a new dimension to their understanding of governance, local economies, and resource management. Using the tools derived from land claim and business relations, but just as importantly from the cultural values and practices arising from an aboriginal habitus, becoming politically active was the main vehicle for challenging resource management practices. Political engagement however is a multi-faceted endeavour. On the face of it, that Délı̨ne leaders were forced to travel to Ottawa indicates the establishment and enduring nature of power structures under which they were compelled to operate.[246] Yet, the will, effort and capacity to travel from a small northern hamlet to the Canadian capital and speak within a political and bureaucratic field suggests a strategic reversibility of power relations. Their actions show how standardized governmental practices, such as requiring their travel to Ottawa, can be turned into a "dissenting 'counter-conduct'" (Gordon 1991:5). An understanding of power as the micro processes that can transform, support, or reverse the forces within relationships was signaled by the continual state of challenge in working groups. One SEWG member recalled that:

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[245] Field notes.

[246] This same business structure is in place when dealing with private resource exploration and development companies in Calgary, Edmonton and Vancouver. The reason given to me was primarily efficiency, concealing the possibility that authoritative structural forces guide the process. Such a 'conduct of conduct' is well illustrated by the Délı̨ne self-government negotiator's response to my question about having to travel to Ottawa for every meeting simply as 'that's the way it's done', indicating its internalized nature.

> ever since I've been on this file, Leroy has been saying 'we need to get more political about this'…They wanna get more political and if that's what they want to do, then I think that's great cause maybe that's what's needed.[247]

Understanding NRM as a politicized activity is culturally costly especially for the Sahtugot'ine habitus which is based on reciprocity and cooperation (Rushforth 1986). The toleration of conflict by the SEWG and GBLWG members and their organizations contributed to solidifying the structure of the groups and functioning of projects. Conflict was costly in terms of time and other resources but, as Coser (1956) and Simmel ([1908]1955) point out, conflict can be helpful in exposing differences and lead to their formal resolution. Issues dominated by conflict, when perceived of as required and important towards the success of the project - even if not entirely accepted by all members - were addressed by targeting higher levels of authority than the working group's membership represented.

Going to Power

Délįne leadership's political habitus developed from historically close interactions with federal and territorial governments.[248] For example, the feeling among working group members was that "Déline was big on going to meet with people who could make decisions. They just go straight to the top, you know. Like, 'don't waste your time'…that [thinking and practice] seemed to come from the Land Claim days."[249] In both the GBL and Sahoyúé-?ehdacho cases political action was spurred by perceptions of a crisis that there was inadequate decision making power at local levels of planning. For example, at the Sahoyúé-?ehdacho working group's table a member noted that "they [Parks Canada] were totally unsure. I mean you definitely had the sense when they were in the room that the power wasn't there."[250] In nearly all planning projects I observed or participated in while in Délı̨ne, a ubiquitous Délı̨ne leadership strategy was the potential for and threats made to go to places where higher formal authority could be accessed. The strategy was so well-used that it became second nature for young leaders as well as elders. The underlying threat by leaders to go places of decision making was backed by historical demonstration of being able to do so. Once an issue was recognized as critical the political habitus of Délı̨ne leadership perceived going to the national capital of Ottawa, as being no further away than the territorial capital of Yellowknife, when in fact it was 5000 km further. In September of 2000 Délı̨ne leaders (along with ENGO support and a federal Member of Parliament Ethel Blondin-Andrew) traveled to Ottawa to meet with the Heritage Minister to promote Délı̨ne's proposal for Parks Canada and gain sponsorship for an interim land withdrawal for Sahoyúé-?ehdacho. The meeting produced a Ministerial commitment but not without long term costs to the community's relationship with Parks Canada regional managers. A working group member told me that the original Délı̨ne political engagement in 2000 still resonated within the Parks Canada bureaucracy and caused concern six years after the initial trip to Ottawa:

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[247] Interview transcript.

[248] See Appendices A, H and I for an historical overview of Délįne's political action with regards to GBL and Sahoyúé-ʔehdacho.

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[249] Interview transcript.
[250] Interview transcript.

> …part of the problem was going straight to the top and the bureaucracy not really having a chance to catch up with it [the changes resulting from the accepted proposal]… when somebody from Parks Canada (even like a few months ago at that meeting we had in Déline) said 'well surely you realize that going to the Minister was not the best way to do it' and I said 'well when you go to the Minister, you figure you're getting the department's view on something'…the Minister said 'yes'[to the proposal. But] the department was not ready for it internally...[251]

The implication from a Parks Canada perspective is that there is a standard mode of management practice following normative bureaucratic behaviour. In other words, Parks Canada officials preferred a conventional managerialist approach to NRM (Howitt 2001) where one goes through formal organizational channels, rather than over-stepping regional managers to get to the highest authority within the federal department. This managerialist approach is challenged by institutional bricolage where opportunities are taken advantage of and are dependent upon local norms.

The process for protection of Sahoyúé-ʔehdacho followed formal NWT-PAS steps but was infused with informal micro-strategies that arose during conflict situations. Bourdieu (in Wacquant 1993:25) tells us that for a group to gain control, they must be "…capable of wielding several forms of domination effectively. Pure economic domination never suffices". Although Bourdieu's explanation reflects power by a dominant group, it can also be used to explain counter-conduct from the standpoint of a diffuse practice thesis. During the three years that I was involved with the Sahoyúé-ʔehdacho working group, the conceptualization and ability to go to sources of power in order in order to affect change was a frequent leadership tool used in Déline. While conducting the required NWT-PAS resource assessments in 2002 and 2003, Déline leaders also sent letters to Prime Minister Paul Martin challenging his government's slow progress on Sahoyúé-ʔehdacho commitments. This practice was followed up with a more strongly worded letter "delivered by hand" to Ottawa in November of 2004 by the Déline Land Corporation President, Raymond Taniton. In the late 1980s and early 1990s, Raymond was the Sahtu land claim negotiator while also Sahtu Grand Chief and Déline First Nation Chief. Symbolically powerful by government acceptance of his past reputation and successes, he embodied and represented the political and cultural capital that was established in the Sahtu-Canada governmental relationship. He challenged the Prime Minister on historic commitments that were made by the Government of Canada through its Minister of Heritage three years previously. "We believe it is incumbent on the federal government to follow through on commitments to protect the land prior to more non-renewable resource development in the NWT".[252] The letter connected federal responsibilities with Parks Canada's unfulfilled agency commitments, in particular the long-delayed release of the Sahoyúé-ʔehdacho Options Paper.[253]

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[251] Interview transcript.

During SEWG and GBLWG meetings, threats of leaders to go en masse to Ottawa to influence federal leaders were sometimes subtly hinted at in comments about their 2000 trip to Ottawa and at other times openly strategized at great length. The history of real action combined with implicit threats to go to where decision-making power lay, represented a symbolic power in practice that was tacitly embedded in the agenda of all meetings. Such symbolic power changed the dynamic of the relationship making government officials more careful about the strategies they employed in the processes. Reflecting the previously mentioned tension within Parks Canada on historical commitments, a regional manager explained the delicate balance in working on community based conservation projects such as Sahoyúé-ʔehdacho:

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[252] November 9, 2004 letter from Raymond Taniton, President of Déline Land Corporation to Stephane Dion, then Minister of Environment.

[253] Recall from chapter five that the Options Paper was a Parks Canada discussion paper on the available options for sponsorship of Sahoyúé-ʔehdacho National Historic Site. The significance of the Options Paper was that an agreement on a management option was needed in order to progress to the final steps of the NWT-PAS process. The Options Paper was an integral component toward making that decision. Option 1 was a co-management agreement for the cultural landscape between Déline and Parks Canada with Parks Canada as sponsoring agency. As sponsor, Parks Canada would take over custodial responsibilities from DIAND for the crown portions of the land with Déline retaining ownership of Sahtu lands.

> if you over-commit to them, something's gonna happen; then that's dangerous because you've overcommitted. But if you kind of go [along] with them, what I find sometimes is they won't lose their trust in you but their frustration then moves to another level, and then they start going to the Minister and things like that, and that changes the dynamics of your working relationship.[254]

Four months after Raymond's 2004 trip to Ottawa, continued frustration by working group members was again high as Parks Canada now failed to secure long term federal Treasury Board funding for Sahoyúé-ʔehdacho and furthermore still refused to release the Options Paper. With the five-year interim land withdrawal from DIAND soon to expire, community leaders felt that political intervention was once again needed. The rationale for the political course of action was indicated in a Délı̨ne leader's comment that "if I was the Prime Minister, I would ask for evidence to show how serious people are…"[255] The community's comprehension of contemporary NRM was to demonstrate significance by combining the practical understanding incorporated in reports, assessments, and relational processes with that of political engagement. Cooperation and partnerships were formalized in the structure of the working groups, but local authority emerged when co-management was perceived of as inadequate by Délı̨ne leaders.

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[254] Interview transcript.
[255] Field notes.

In 2005 Délı̨ne leadership took political action through a spontaneously organized Délı̨ne leaders' trip to Ottawa in which I was invited to participate to help coordinate activities in Ottawa. The objectives of the meeting were to pressure Parks Canada to work more closely with DIAND on the Sahoyúé-ʔehdacho land withdrawal extension, persuade the Parks Canada CEO to release the management Options Paper, and to extract a tangible commitment for long term funding for Sahoyúé-ʔehdacho. Délı̨ne Sahoyúé-ʔehdacho leaders used the leadership of the powerful Délı̨ne Self-Government Office (DSGO) to arrange the meeting with the Parks Canada CEO.[256] Although not intended, the association with self-government increased the importance of the group and raised its symbolic value. The meeting with the Parks Canada CEO and senior advisors on April 15th resulted in confirmation that the land withdrawal would be signed, the Options Paper released, and additional short-term funding provided. The three agenda items that Parks Canada was confronted with were examples of issues of great consequence for the completion of step six of the NWT-PAS. The third item, Parks Canada long term funding as sponsoring agency for Sahoyúé-ʔehdacho, proved to be of much greater significance. The issue of negotiation explicitly tied to funding was only revealed during the midst of what was thought to be a straight-forward directions confirming workshop in Délı̨ne. Although the ties between funding and negotiation were loosened and quasi-negotiations were allowed to continue, the failure of Parks Canada to secure long term funding for the protection of the aboriginal cultural landscape led to increased community pressure on Parks Canada Senior level management. This will be discussed in greater detail in following sections.

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[256] Bear in mind that the Déline self government process is the first community-based self government process being negotiated in Canada. Overall, the federal government has a great deal of political and ideological capital invested in the process of self-government (see for example, GNWT 1999).

The final instance of Déline leadership using the political engagement tools at hand occurred in 2006. The Déline Land Corporation president stated that the working group's lack of success in affecting federal government processes meant it had become "a political issue … [in which] it's time that Déline takes even more control of the process." When a CPAWS (ENGO) representative offered to go with the Déline delegation to Ottawa, they were told that they were welcome to assist but that it could only be for "technical assistance" as the message to the Ministers of Environment and DIAND would be "clearly political."[257] This example illustrates that social interaction as encouragement of shared understanding can be overridden by a process of interaction based on a politically motivated form of practical understanding. The resistance by Déline leaders to use CPAWS' organizational capital appeared to be related to the perceived amount of influence or symbolic capital held by Déline leaders when planning for a meeting with Ottawa decision-makers. CPAWS shared knowledge and contributed to the working groups but was also seen as having a specific outsider position.

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[257] Field notes. Sahoyúé-ʔehdacho Steering Committee conference call. March 8, 2006.

Working the Boundary

CPAWS played an integral role as a boundary organization in both GBL and Sahoyúé-ʔehdacho processes. Boundary organizations occupy the territory between politics and science, connecting knowledge with policy decisions and public action (Guston 1999, 2001).[258] An objective of boundary organizations is the production of hybrid products that derive from both science and society (Miller 2001). A key characteristic of boundary organizations is one of stability rather than isolation from NRM processes and issues, and arises out of being accountable and responsive to opposing, external authorities (Guston 1999).

Situated between local and governmental NRM practices, CPAWS served an atypical ENGO function as a boundary organization.[259] Environmental movement organizations often take a strong preservationist and anti-industrial development stance to environmental governance issues. CPAWS representatives, in this case, presented themselves as sensitive to multiple interests and values, and assisted in both community and government projects by taking a proactive and participatory role. Moreover, they recognized the need for economic development in the community and the relationship Délı̨ne leaders were developing with resource companies. CPAWS working group members developed a strong relationship with other working group members by providing services such as workshop rapporteur and writing of summary reports, assisting Dél̨ne leaders in writing letter and briefing notes, political lobbying efforts in Ottawa, and development and distribution of key working group publications. The long periods of time spent working with Dél̨ne leaders allowed CPAWS representatives to better understand, if only partially, local conceptions of NRM:

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[258] A similar term 'bridging organization' has been suggested for groups that reduce transaction costs of inter-organizational collaboration in adaptive co-management processes (Hahn et al. 2006, see also Scott 2002 for the sociological theory of bridging). The GBL and Sahoyúé-ʔehdacho working groups would thus be considered bridging organizations. ENGOs on the other hand, and especially those with a history of conflict in conservation, have greater difficulty engaging as insiders and more likely undertake/represent an outsider boundary perspective and role. Boundary organizations are thus more political than bridging organizations.

[259] Recall that CPAWS represented other ENGOs from the north and Canada including World Wildlife Fund (WWF-NWT Chapter), Canadian Arctic Resources Council (CARC), Ecology North, and the national organization of CPAWS.

> I think over time you get a better understanding Déline's motivations [regarding the GBL and Sahoyúé-ʔehdácho processes] … but I don't, you know, understand it the way people in Déline understand it for sure, for absolute sure…like, I'm saying I get it but I don't necessarily *feel* it; I think maybe this is the difference.[260]

In return, CPAWS was strategically situated within the working groups and able to convince community leaders to work with them to promote larger-scale conservation programs. Lacking power in the traditional sense of authority, CPAWS used discursive legitimacy (Lovelock 2002) to alter Dél̨ne's involvement in, and possibly understanding of, nationally relevant issues and processes. In one example a CPAWS national representative, working with the SEWG, supported Dél̨ne SEWG members' travel to Ottawa for the unveiling of the Canadian Boreal Initiative's 'Mackenzie Week' on Parliament Hill to build support for boreal forest environment protection. The national office of CPAWS also used the SEWG as part of the national Green Budget Coalition in which the 2007 proposal's focus was 'Conservation in the Mackenzie Valley'.[261] As explained by a working group member,

> there's sort of a standard way that ENGOs do things [chuckle] and one of the things is 'hey let's try to get some media by getting some people on a river' and you also try and get some funders on a river and if

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[260] Interview transcript.

[261] Field notes and personal communication with Morris Neyelle, April 9, 2007. This was not part of the Sahoyúé-ʔehdacho working group or community's planned program. Although it was mentioned in a working group meeting, no working group discussion took place regarding details or program objectives of the trip.

> you're an ENGO, you wanna show that you have relationships with the local First Nations so you try and get somebody important.[262]

The examples and quote above illustrates that strategies are being used not only to assist the objectives of the working group, but also promote CPAWS' status in other projects. An indirect outcome is increased perceived efficacy and influence of the boundary organization in larger fora and contexts. CPAWS' work has effectively transformed their historically perceived preservationist, litigious and watchdog stance to a position as active, positive and even powerful organizational actor in NRM.[263] Their role in the indirect policy development of aboriginal cultural landscapes also fulfills CPAWS' perceived lack of representation in national policy development (Lovelock 2002). Nonetheless, the shared understanding of local and government resource management was increased by CPAWS' involvement in the two cases by working between local and governmental values and interests. The involvement of CPAWS is most certainly a case of strange bedfellows. Some critics suggest that this is an example of CPAWS being coerced with industry-linked funding to indirectly promote industrial development.[264] Rather, I suggest that the relationship is the result of multi-directional strategies of influence where increased practical understanding of NRM has political as well as interpretive effects.

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[262] Interview transcript.

[263] Lovelock (2002) comes to similar conclusions in his analysis of the changing relationship between CPAWS and Parks Canada since CPAWS inception in 1963.

[264] Critics argue that organizations within the northern Canadian environmental movement, including CPAWS, have been indirectly influenced to become docile conservationists (Cizek 2007, Jay 2007). Cizek (2007) says this occurs when CPAWS accepts funding from foundations as industry 'fronts' (for example, Canadian Boreal Initiative) that have strong connections to oil and gas development, specifically, the Pew Charitable Trusts' connection to Sunoco and Suncor. However, see Alcott (2005) for a more nuanced explanation of ENGO rationale for collaborative approaches. He explores the emerging cleavages within ENGOS and the current momentum in approaches and objectives based on interconnected issues of ecological sustainability, economic efficiency, and distributive equity.

My discussion to this point indicates that people were cognizant of the continual political engagement required to support the practical understanding that developed between group members. Déline's actions support the suggestion that Aboriginal people must address the power imbalances they often confront in dealing with governments in order to influence resource management in meaningful ways (O'Faircheallaigh 2008). Engaging with power structures is the most direct means of influencing change. In the process of social and political engagement, various forms of disengagement are also present and utilized. The following section explores disengagement not as an oppositional force but as a practical component of institutional bricolage.

Practical Disengagement

In studies of northern NRM, disengagement is often presented as part of, and associated with, local people's resistance as an attempt to maintain aboriginal values and knowledge systems in resource management discourse (Stevenson 2006, Nadasdy 2003). Examples of forms of resistance in northern co-management include complete avoidance, intermittent attendance, and non-cooperation in meetings (Spak 2001, Stevenson 2006). On the one hand there are claims that "[i]nvariably, neither direct nor subtle indirect forms of resistance have been very effective tools for aboriginal participants to affect change in contemporary co-management practice" (Stevenson 2006).[265] Others, on the other hand, suggest that resistance to forms of unacceptable NRM discourse or practice can force the reexamination of issues in co-management practice (Freeman et al. 1998). This latter interpretation, implying a practical disengagement, provides a starting point for an examination of disengagement as a form of temporally-influenced engagement.

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[265] A problem with perceiving resistance as generalized in practice is that it is all too easy to interpret signs of non-participation as resistance when in fact it could be procrastination and deception perceived as agency (Cleaver 2004, Brown 1996).

Bourdieu ([1980]1990) stresses that in order to fully understand practice, time as tempo must be introduced into one's analysis. The tempo of social interaction is integral to the strategies that take place in political engagement. In Délı̨ne, a combination of western political and aboriginal cultural practice produced a community engagement process that was blurred between legal and traditional, and progressively continuous and ephemeral. Reflecting on community deliberations, a previous Délı̨ne chief told me that "I've been involved over the last twenty-five years [when] we negotiated the claims and there's always room for time [to discuss issues]."[266] This is not only a Délı̨ne leaders' sense of power over the tempo of the process; the use of time was couched in western legal terminology that found commonality with aspects of local cultural meanings of time. In both the GBLMP and Sahoyúé-ʔehdacho processes, a common practice for controlling the tempo of engagement was referred to by some leaders as a 'caucus' where group members 'stepped back', ostensibly in order to consider, discuss, and coordinate actions. Délı̨ne group discussions frequently occurred in the course of meetings when elders or leaders were unsure of a working group process or concept. I found that the younger leaders would often speak first to explain the circumstances or issues being faced. Following this, elders would then provide guidance that contributed to any decision being made. It was explained to me that where the issue was too significant for a discussion in a limited time period, it would be addressed outside of bureaucratic planning in evening informal visits between community members. In this sense, a practical disengagement was associated with social relationships apart from the strict regime of clock time (Pickering 2004). For example, the lengthy delays in early GBL working group proceedings - originating from community perceptions that they were not being suitably involved - ultimately led to the application of the Water Heart story. Without the time for a socio-cultural form of consideration of inadequate community involvement in the planning process, the Water Heart may not have been so selectively presented and used in the planning process.

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[266] Interview transcript.

Practical disengagement as part of institutional bricolage was similarly used by government agencies for organizational reasons. Rationale for this approach might be as simple as an obvious delay that originates from bureaucratic complications and new policy development to the complex strategies behind maintenance of the balance of control and symbolic power. In the case of the Options Paper, a delayed release would in effect limit formal discussion of management of aboriginal cultural landscapes. Recall that the management options that Parks Canada was willing to consider would not only signal formal sponsorship but also further form the basis for negotiations with Délįne leadership. The Options Paper however, was repeatedly delayed by Parks Canada, often with varying reasons given to the SEWG and other government agencies. By 2004 when Parks Canada's Options Paper commitment to the SEWG was already two years late, an INAC senior official complained to his counterpart in Parks Canada that "for reasons unclear to me and my officials, the development of management options for Sahyoue/Edacho [sic] has been continually delayed by Parks Canada."[267] Parks Canada representatives later stated the reason for the delay was the naming of a new Environment Minister and the unprecedented challenge of addressing surface and subsurface rights in a NHS.[268] Given that the development of aboriginal cultural landscapes were in their infancy and had yet to be operationalized within Parks Canada, it is likely that organizational capacity within Parks Canada was unable to address new conservation approaches and potential development issues at the same time. During these delays however, SEWG members were frustrated by a lack of clear answers leading to the belief, expressed by a government official, that

> Parks Canada should've just said to [Minister] Sheila Copps 'we're not prepared to do this. We need to do our own in-house study to determine what culturally we can do to protect it' and then come out with a handbook to us and say 'here's the handbook'. But what they wanna do is have us run with it. *We're making the handbook as we're going…*

Délı̨ne leaders and working group members suggested to me that Parks Canada's dis-engagement strategy, or as one SEWG member put it: a "weird stalling thing that Parks Canada was doing around the management options…"[269], was practical in that it allowed time for policy and management practices to fully develop. Other working group members implied it was tactical institutional paralysis and noted Parks Canada's inconsistency with other federal departments' actions: "you know, DIAND put their resources and money out to meet and give contracts and everything else but Parks Canada just really, in my opinion, sat on their haunches and just waited…[270]

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[267] Letter from Bob Overvold, Regional Director General, NWT Region, INAC to Christina Cameron, Director General, National Historic Sites, Parks Canada. September 20, 2004.
[268] SEWG meeting minutes. October 7, 2004. Yellowknife.
[269] Interview transcript.
[270] Interview transcript.

Because the Options Paper was recognized as a major requirement toward protecting Sahoyúé-ʔehdacho, working group frustration ensued. The lack of information on its delay led to some discouraged working group members to observe that

> the way Parks Canada's handled Sahoyúé-ʔehdacho is an example of how *not* to do it. I don't think that they would sit back and say 'boy, this is a stunning success how we've done this'...certainly not how they would normally do something...They're not used to doing these [cultural landscapes]; this is a new animal.[271]

Parks Canada has a long history and extensive experiences in working with aboriginal communities on protected areas (Neufeld 2007). Their delays cannot be assumed away as bureaucratic inefficiency. Rather, the practical disengagement by withholding the Options Paper is an example of what Steven Lukes describes as "the power to decide what is decided" (Lukes 2005:111). An informal non-agenda was established by the three year delay of the Options Paper preventing issues from being raised, and possibly decisions from being made, that might negatively affect Parks Canada in future precedents and more importantly, the development of community relationships.

For Parks Canada, a practical disengagement allowed for in-depth policy analysis and review of the impact of aboriginal cultural landscapes in setting precedence in Canada.[272] It also provided space for alternative reviews of the issue to surface and be considered such as the Sierra Legal Defense Fund's legal opinion and management options paper for Sahoyúé-ʔehdacho (Venton 2004). The alternative

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[271] Interview transcript.

[272] Parks Canada was very active in aboriginal cultural landscape development in international and national fora during this time. For example, in UNESCO and IUCN/World Conservation Union conferences and programs cultural landscape discussions suggest these organizations themselves were going through an institutional learning phase.

Options Paper was commissioned by the SEWG member from CPAWS-NWT, a northern ENGO, corresponding to CPAWS' historical use of litigative-sourced resources (Lovelock 2002). Thus the SEWG members from community, government and non-governmental organizations were able to use their own organizational social capital to strategically introduce conflict and influence one another's organizations while still collaborating as a working group. Despite the organizational policy benefits to Parks Canada, the transaction costs of practical disengagement were high as Délįne-Parks Canada relations were weakened, leading to a period of low activity on the project. One Parks Canada working group member, reflecting on the implications of such a strategy after the Options Paper was found to be so weak in substance, said

> you know, we're really at a community crisis level with them [Délįne] over this whole thing because they've lost when we were supposed to release these terms of reference [Options Paper] of what we were going to do. I said 'you know we pissed away for a whole year here' and when they see this, they're gonna go 'What? What did you hold this for a year for?'....like you lose, I find the organization loses credibility, and then you end up wearing some of that.[273]

An attempt to counter the obvious weakness of the Options Paper was made by Parks Canada officials when it was first presented to the community and SEWG. A statement was made immediately at the beginning of the meeting that the Options Paper was an options discussion paper *for* Parks Canada; it was not necessarily intended for Délįne or the SEWG.[274] In spite of the attempt to avoid political embarrassment, the symbolic power of the Options Paper, which Parks Canada had relied upon for three years, had eroded. This shows that, like the forms of resistance described at the beginning of this section, practical disengagement is a risky strategy to undertake with repercussions from unlikely sources. Whereas Parks Canada officials may have expected Délı̨ne leaders' challenge over the delay and contents of the Options Paper, they were also challenged from within their own bureaucracy.

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[273] Interview transcript.
[274] Field notes.

The Complexity of Bureaucracy

By the end of 2005 the Parks Canada Options Paper was released and the Interim Land Withdrawal Extension was signed by DIAND providing a second five-year period of protection from resource exploration. Funding for the final steps, where negotiation could take place, was however still incomplete. In a planning meeting prior to the Directions Confirming workshop, the strategy used by Parks Canada in dealing with Délı̨ne and Sahoyúé-ʔehdacho was challenged by DIAND officials. A DIAND official, in effect, 'called out' Parks Canada on their policies, practices and level of commitment for cultural landscapes. This DIAND senior official told meeting participants that he was concerned with the "change in fundamental positions" of Parks Canada in working within the NWT-PAS, and that "DIAND will take this as a lack of commitment and not be receptive to continuing" [process funding and the crown land transfer to Parks Canada].[275] DIAND officials strategically sponsored a two-day Délı̨ne leadership meeting in order to prepare local leaders for upcoming negotiations with Parks Canada. One of the ways that DIAND was able to show their commitment to the Sahoyúé-ʔehdacho process as well as hold other federal departments (primarily Parks Canada) accountable, was to pay for the hiring of a legally-trained facilitator in order to "kickstart the negotiation process in Délı̨ne" and present some ideas on what might be on the table for negotiation.[276] Where one government department was forging ahead by supporting community negotiations, another department was caught up in their own standpoint of immediacy, unable to move ahead because of historical commitments and concerns for precedent. A Parks Canada official, in the heat of a discussion about negotiations and departmental policy, referred to the September 2000 Minister Copps commitment by stressing that "what happened five years ago is history; we can't keep dredging it up."[277] Clearly, as much strategic action and conflict existed between governmental departments as did that between communities and government departments.

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[275] Field notes.

Community optimism and confidence was high in November of 2005 for what many assumed was to be a negotiations workshop in which Parks Canada and Délı̨ne would begin to discuss the development of a management plan for Sahoyúé-ʔehdacho. The workshop however turned out quite differently.

> *The tension was so thick at this point of the Sahoyúé-ʔehdacho Directions Confirming Workshop that you could cut it with a knife – people were visibly tired of trying to make sense of two different federal departmental policy positions in deadlock. I'm sure the term "Canada", which has been used so often in the past to lump all Canadian government together, now has new meaning for the Sahtugot'ine. What began as a cooperative process instantly turned into a conflictual stand-off. We haven't gotten anywhere near a decision on the type of management process for the protected areas apart from seeming to agree on Option One (which was already assumed) - that Parks Canada would be the sponsor and acquire the*

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[276] Field notes. Délı̨ne community planning for Sahoyúé-ʔehdacho was assisted through an alternating DIAND and Parks Canada yearly funding formula managed through the Protected Areas Secretariat. However, additional funds were provided by DIAND through the Protected Areas Secretariat for facilitation purposes on an ad hoc basis.

[277] Field notes. November 8, 2005. The Ministerial commitment by Sheila Copps itself represents a form of symbolic capital that was repeatedly used by Délı̨ne and other government and non-governmental leaders when challenging Parks Canada on Sahoyúé-ʔehdacho.

> *Crown portion of the area to manage cooperatively with Délı̨ne. Now, DIAND and Parks Canada just can't agree on the process by which management planning can proceed. Whereas DIAND (and GNWT) senior managers feel that starting to negotiate a management framework and plan is the answer, Parks Canada is adamant that they will not negotiate anything without having new funding from the federal Treasury Board. But here we are after one already-failed attempt by Parks Canada to receive Treasury Board funding. The situation is at a standoff and so the facilitator calls for an evening meeting to try and sort out this policy impasse. This situation sure wasn't envisioned two weeks ago in the Délı̨ne leaders' workshop...*
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> *...The evening meeting at the Grey Goose Lodge is faring no better than the day's workshop. In fact, it's even tenser. The frustration from today's workshop spills over to the time and amount of money that the DIAND Director has spent on "getting this done - between one and two million dollars and over 10 years in the process...and now Parks Canada comes to the table refusing to negotiate" With a federal election fast approaching, a minority government likely, and a delayed budget expected to follow, no one's really talking about alternative options in the event of failure. The only decision made by DIAND and GNWT is to grudgingly support Parks Canada's plan through a strong political lobbying strategy. If the budget submission is unsuccessful, a Parks Canada senior official says the only recourse is to "try again for a third time." A DIAND official says one could expect the community to walk away from the process if it fails this time or alternatively, for the community to go it alone without DIAND, the PAS or Parks Canada. The faces around the table take on a panic-stricken look at this suggestion given all the work and effort that's gone into Sahoyúé-ʔehdacho's protection.*[278]

Although both federal departments had diverging policies for planning with communities, an agreement was reached where they would cooperate and support Délı̨ne's political lobbying efforts. Promoting bricolage, leaders agreed that "underscoring all this [policy conflict] is the need to be flexible in our respective processes in order to get things done."[279] The above scenarios illustrate that tension naturally exists between governmental departments and agencies which have conflicting mandates as well as policies and responsibilities. It was apparent that DIAND officials, responsible for regulating development, were worried about "resource companies waiting on the doorstep" of Sahoyúé-ʔehdacho for an opening to explore it for resources.[280] Parks Canada, in contrast, was trying to make it clear that Sahoyúé-ʔehdacho was "not a land use plan type of system that DIAND was used to."[281] Parks Canada officials had to counter inter-departmental pressure while developing precedent-setting policies for aboriginal cultural landscapes in the North and on National Historic Sites across Canada.

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[278] Field notes.

[279] Field notes. SEWG Public Meeting, Délı̨ne, November 10, 2005.

The governmental strategies of engagement revealed by the above scenarios are not meant to attach success or failure to government agency's actions. In fact, while Parks Canada's strategy implies a roadmap to failure, they were eventually able to secure permanent long term funding for the protection and management of Sahoyúé-ʔehdacho. In contrast, DIAND's successful process for the GBLMP was based on developing a management plan that had no specific funding attached to it and was dependent upon year to year funding; hardly a desirable position for communities and outside researchers. These examples of governmental strategy indicate that uncertainty was inevitable amidst variable understandings and applications of NRM. In much of the common pool resource and co-management literature, distinctions between governmental agencies are rarely made. Rather, government ("Canada" as they are referred to from an aboriginal land claims perspective), is often portrayed as a unified and cohesive partner or entity with whom to work with, or against.[282] In these two cases, federal and territorial agencies did not often take common sides against local interests, and rather they were frequently at odds with one another in terms of departmental policy and fundamental NRM practices. In much the same way that the concept of collective resistance can not be generically applied to local groups (Ortner 1995), so too is it inappropriate to paint the state with broad brush strokes when it comes to practical applications of NRM. The examples above show how organizational identities were conflated without considering conflicting norms and interests.

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[280] Field notes.

[281] Field notes. Sahoyúé-ʔehdacho Directions Confirming Workshop, Délı̨ne. November 8, 2005.

Institutional bricolage attempts to take into account how organizational identities play an important role in understanding how NRM might be understood and practically applied.[283] Understanding and application of NRM inherently considers the interface between science, culture, and politics. The uncertainty that institutional bricolage operates within thus requires a consideration of the strategies taken by mediating organizations in this interface.

COMMUNITY BASED CO-MANAGEMENT AS INSTITUTIONAL BRICOLAGE

Space for the practical application of shared understandings of NRM has been little-examined in the NRM literature, especially in co-management. Community-based co-management creates the authoritative space needed for innovative practices to transform co-management. Importantly, it provides a space with which to examine how NRM practices change in culturally divergent contexts. Innovation in NRM can arise from novel bureaucratic arrangements that complement or reinforce the positive aspects of socially embedded arrangements. Such an alternative approach was suggested in an interview with a Délįne leader:

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[282] See also Mehta et al. (1999) who note this characteristic of complexity in institutional development.

[283] Cleaver (2002) and Granovetter (1992) observe that institutional theory is often inadequate in providing actors or resource users with meaningful social identity. Cleaver's conception of bricolage importantly focuses on the social location of agents yet she ignores how organizational identity is also relevant to institutional bricolage.

> We've proven all our views and our principles and our values within the whole process. That it is very powerful from our perspective… we're trying to fit under Parks Canada's, under Canada's legislations and if we can't find a box that we can fit into then maybe Parks Canada or [the] government of Canada has to change their legislation to accommodate Sahoyúé-ʔehdacho because they're such unique sites in a sense.[284]

The co-management model that guided the planning of the GBLMP and protection of Sahoyúé-ʔehdacho cultural landscapes will probably lead toward a formal or bureaucratically-influenced institution. This NRM institution, while grounded in formal processes, is nonetheless illustrative of institutional bricolage. The strength of institutional bricolage lies in its capacity to make do with available resources and institutional histories, to allow for the continuation of meanings and identities, and to rely on a high degree of structural flexibility in NRM (Caddy 1999). The resource managers who choose to remain and work within these new co-management approaches have a great deal to offer in terms of transference of their knowledge of formal institutions as well as their knowledge of resource management. Resource managers and organizational leaders who support a bricolage approach to co-management provide evidence of what Howitt (2001) suggests is needed in re-thinking resource management: a new professional literacy in resource management. This literacy requires a grasp of the "socio-cultural, politico-economic, and biophysical complexities of resource management, rather than only the technical, financial, or engineering complexities" (P.9). The practical understanding that developed in the GBL and Sahoyúé-ʔehdacho processes exemplifies the initial stages of a new NRM professional literacy. The process in which meanings and understandings of bio-physical attributes were revealed and shared by working group members, not only in terms of cultural origins and cross-cultural applications but also in terms of political and economic conditions, suggests a more nuanced approach to NRM collaboration is required rather than a step-by-step formal process for participatory involvement.

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[284] Interview transcript.

A key characteristic of institutional bricolage is that partnerships are re-conceptualized in a socially embedded process rather than separate, deliberate and transparent managerial activities. The challenges and potential for applying bricolage in resource management can be illustrated with two examples from my experiences in Délįne. The first example demonstrates how government agencies can be resistant to changing their technocratic tendencies in resource management. During a regional co-management board general meeting in Délįne, a team of five federal government officials from Minerals and Petroleum Resource Division of INAC in Yellowknife participated. The group arrived at one pm, halfway through the meeting. After announcing the signing of a contract with a local person as advisor to their Division, the Director surrounded himself with his team in one corner and was for the most part sheltered from social interaction with community members. The Director subsequently made a presentation on petroleum and minerals exploration legislation.[285] Then, with his team beside him at the front of the room, he personally fielded all questions asked by meeting participants while his communications manager standing next to him, remained silent. The group returned by air-charter to Yellowknife at five pm on the same day choosing not to participate in the evening's social and cultural events.

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[285] The Minerals and Petroleum Divisional Director wore a Diavik Diamonds jacket (one of the largest resource development proponents in the NWT) at the renewable resource co-management board.

The second example of bricolage is the re-conceptualization within government agencies and non-government organizations to become active in new ways and with new partners. While CPAWS acted as the clearing house for all GBL and Sahoyúé-ʔehdacho public reports and documents, they also worked closely with the federal-territorial government NWT Protected Areas Secretariat to coordinate working group activities. The identity of some federal government departments and CPAWS became blurred because of similar goals and repertoire of strategies used. This was explained to me by a working group member:

> Well I think one of the things that, that's happening here that I should acknowledge is that there's a pretty unique relationship between the government and the environmental groups here. In our larger CPAWS organization, they're more wary of government and we understand how government works and stuff here…and there is support from… [DIAND directors]… for what we're trying to do under the PAS - that level of interplay between aboriginal groups, ENGOs and government is a close collaboration and people aren't distrusting of it. They're kind of, now anyway, fairly accepting of that 'okay all these people are trying to do the same thing' and so that's a pretty good relationship.[286]

The blurring of relationships was evident from my observations of people's movement between organizations, from interactions in meetings, and from interviewee comments. Many of the people on the working groups from DIAND and the Protected Areas Secretariat had also worked with CPAWS, while those working

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Notwithstanding this act's relevance to the relationship between government and industry, it was significant in that a key issue to be discussed in the SRRB meeting was the potential decline in caribou population numbers in the face of industrial development.

[286] Interview transcript.

for CPAWS had previously worked for DIAND. The development of interactive relations and networks suggests that the idea of politics and science as neatly partitioned should be re-thought in order to examine innovative processes where multiple interests are considered (Alcock 2005, Guston 2001). The importance of alternative networks came up in many of the interviews; respondents were often adamant that the cooperative nature arising from blurred organizational boundaries was as important as the final plans.

> KC: There's these linkages [between working group members] that I find interesting.
>
> Respondent: You need those links to keep the process going cause people can't continually relearn what's going on and relearn the politics. Because relationships within the resource management rules are just as important as the products or the work, the writing that's coming out of them - building those relationships.[287]

A key aspect of the changing relationships demonstrated in the two case studies is an indirect result of the movement of people between organizations and community. Innovation in NRM planning processes arises from understanding one another's environmental management interests, organizational values and worldviews. The freedom to experiment with new ideas was acknowledged by a number of working group members, all of whom had worked in both government and non-governmental positions on community based projects. This was expressed to me in comments such as: "I think maybe in some ways the DIAND district here has a little bit more freedom since they are so far away from Ottawa..."[288] Similarly, a CPAWS member related that "...how CPAWS chapters choose to use those [CPAWS policies] can differ depending on the membership…at CPAWS-NWT, our focus is on supporting communities and balancing conservation and development."[289]

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[287] Interview transcript.
[288] Interview transcript.

While both Parks Canada and DIAND were embroiled in intra-departmental issues and conflicts, they nonetheless demonstrated what Charles Tilley (2004) suggests as elements of social movements. With the support of local First Nations and regional ENGOs, these federal departments actively participated in campaigns using a number of combinations of political action, and displayed unity toward the larger NRM objectives (Tilley 2004). Like many non-governmental agencies the governmental organizations in these two cases are learning to become more flexible to alternative processes, funding arrangements, and importantly, attentive to the social skill-set of people they require and employ in community-focused positions.

The transformation taking place within these two cases exemplifies how co-management can be interpreted as a form of institutional bricolage. The freedom to try new ideas, work near or outside the boundaries of organizational practice and policy, and exploit existing arrangements with a high degree of relational exchange, increases opportunities to practically apply one another's understandings of resource management.

CONCLUSION

This chapter provides a complementary element to explorations of NRM understanding. Research often highlights the differences between western and traditional forms of resource management, often leading to conclusions that resource management is incompatible with respect to aboriginal and non-aboriginal environmental governance practices. My research objective was to explore how natural resource managers perceive, negotiate and practically apply one another's understandings of NRM. Intersubjective and interpretive aspects of NRM are necessary but not sufficient to describe NRM in practice. In chapter six I explored how different understandings of NRM are shared in the process of watershed and landscape level conservation and resource management planning. I brought forth the idea of practical understanding as one facet of negotiating NRM, amidst relationships of power. In this chapter I suggest that practical understanding of NRM has an equally powerful and corresponding political facet in the practical application of the resource management stories and metaphors of both local people and scientists (Cruikshank 1998). The negotiation of different facets of NRM is explained by institutional bricolage where individual and organizational strategies influence NRM practices.

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[289] Interview transcript.

Institutional bricolage is a process of complex improvisation within the established structure of NRM while attempting to affect greater structural change in subtle ways by using available forms of capital. Bricolage attempts to return socially-embedded context into NRM institutional development. The strategies utilized in bricolage encompass practice as both tacit and indirect, while at the same time intentional and explicit. Power relations as strategies, integral to the practical application of shared understanding, were illustrated by the reciprocal relationship between engagement and practical disengagement. I presented a discussion of these two aspects of strategy to highlight the fact that power is contingent upon the resources or capital used, and how it is accepted by others in collaborative NRM processes.

Natural resource management as a metaphorical dance is not cooperative in the structured folk dance sense that Berkes et al (2007) describe in proposing an agent-based adaptive co-management. Rather, it is a competitive dance-a-thon where people cooperate with the knowledge that conflict could ruin the collaborative process. The partners thus continue on along a cooperation-conflict pathway in which strategies mediate practice, and social and political learning takes place within those interactions. The examination of NRM understanding presented in these two chapters would be thin if examined from only a cooperative, social learning perspective, or alternatively from only a power-as-conflict analysis. Taken together, they begin to account for a rich contextual form of NRM that while seemingly fragmented and unscientific, has much to offer in the understanding of processes needed in the development of new NRM institutions.

Chapter Eight
Conclusion: Natural Resource Management Rethought

INTRODUCTION

The title of this conclusion reflects the need for a re-evaluation of how natural resources are managed by people where social and cultural forms of land use have been given primacy. Improvement to NRM practices in the Canadian north is faced with the issue of increasing the understandings between actors while at the same time addressing the social and political structures that are integral to affecting real changes. Just as Aboriginal peoples are increasingly empowered to make decisions in NRM so too are historically powerful actors expected to play a role in creating new institutions by considering multiple ways of knowing and social practice. An implicit and daunting question behind this expectation is *how* the NRM relationship will reflect both shared understanding and existing socio-political structures.

Through the research presented in this dissertation, I examined the relationship between local and outside actors in the development of NRM institutions from the notion of practical understanding. The Sahtugot'ine people of Délįne are actively involved with government and non-government resource managers and scientists to collaboratively develop the GBL watershed management plan and establish the protection, conservation and management of Sahoyúé-ʔehdacho, an aboriginal cultural landscape. Using an ethnographically-informed process I investigated the associations between historical socio-political structures and increasing local agency as a form of logic in social practice. This result is a sociological qualitative description and explanation that captures meaning and practice within planning processes.

RESOURCE MANAGEMENT AS PRACTICAL UNDERSTANDING

The Great Bear Lake watershed is expected to be managed collaboratively among federal, territorial and Délįne agencies as prescribed in the community-based watershed management plan. Sahoyúé-ʔehdacho will remain a National Historic Site but will be collaboratively managed between the Délįne First Nation and Parks Canada as a unique financially secure and permanently protected aboriginal cultural landscape. Although community-based management is increasingly integral to northern NRM, government and non-government actors will continue to play a key role as co-management evolves.

In NRM there is a healthy and necessary relationship between social learning-trust and power-knowledge. This dissertation accounts for this relationship through the concept of practical understanding. The GBL management plan case illustrates inter-subjectivity and shared understanding in NRM planning whereas the process of long term and protection of Sahoyúé-ʔehdacho shows how power is practically, both implicitly as well as explicitly, embedded in shared understanding. Sahtugot'ine people often used stories from oral histories that initially resonated with outside actors, but took on even stronger meaning as resource management relationships progressed and connections were made between knowledges.

Délįne elders and political leaders acknowledged that their community was rapidly changing. New ways of thinking and practicing their traditions were needed to move the community forward, accounting for changing socio-cultural and economic realities. This meant using the land and resources differently to accomplish changing community objectives. For resource managers from outside Délı̨ne, changes to political structures and relational policies meant altering the way that NRM was envisioned. It is, as one working group member summarized, an approach where "Dene law along with scientific knowledge and government law all try to work together…it's not like we're trying to do opposite things. We're trying to do the same thing."[290] In the process of collaborative planning Délı̨ne leaders suggested a conceptual diagram illustrating NRM premised on shared understanding of the land and formal responsibilities for management (figure 16).

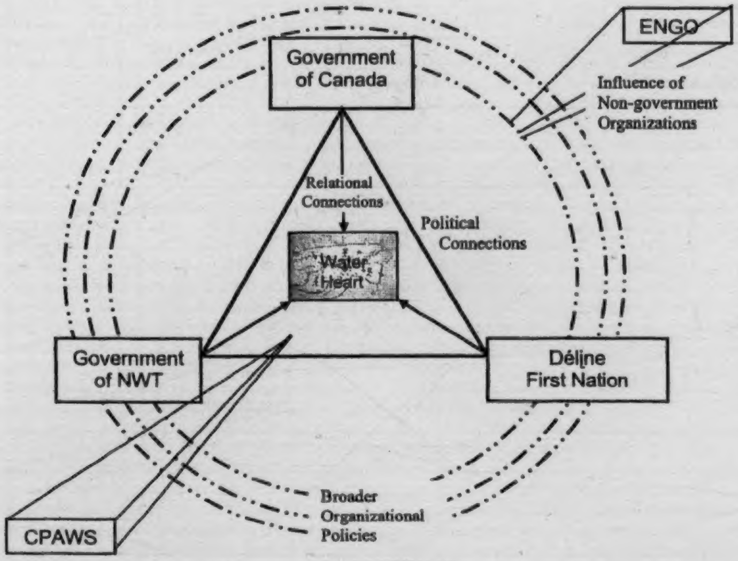
ENGO
Government of Canada
Influence of Non-government Organizations
Relational Connections
Political Connections
Water, Heart
Government of NWT
Délı̨ne First Nation
CPAWS
Broader Organizational Policies

Figure 16: Conceptualization of Great Bear Lake Resource Management

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[290] Interview transcript.

> Sahoyúé-ʔehdacho is *so* political and there's so much unwillingness on some parts [groups] to protect the land that it's really beyond just wanting to protect the land now. It's so beyond stories…it's just at a stalemate really and it has nothing to do about the importance of the land. It has nothing to do with the technical assessments.[240]

Community leaders' willingness to use the influence and authority originating in their land claim agreement, community self-government agreement-in-principle and industry experiences as symbolic capital in their strategies was countered by bureaucratic authority and structural ability to slow processes down while maintaining a veneer of collaboration. This power in practice exemplifies what Richard Jenkins refers to as a creative performance where the art of the necessary improvisation is the "exploitation of pause, interval and indecision" over the course of time in practice (Jenkins 2002:71). The practical understanding that was developed during the GBLMP and protection of Sahoyúé-ʔehdacho was at times beneficial for moving the projects forward while at other times was constrained by power structures resistant to change. The explanation that local actors are subordinated following the interests of external forces does not adequately explain how resource management is understood and adapted in new ways for new objectives. In contrast, an over-socialized account based on social learning and social capital formation in planning processes cannot explain the power relations, manipulation and conflict inherent in any social relationship.[241] Rather, cooperative as well as conflictual situations occurred in the same space but at varying times.

The above sections point to a repositioning of communities not as heroes contesting power from the outside, but as active agents whose struggles are formed

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[240] Interview transcript.

[241] This is clear from much traditional knowledge related research in co-management where power is duly acknowledged at the beginning but then 'bracketed' and subsequently ignored.

The conceptualization originates in the political relationship in which Délı̨ne takes a greater role in formal management activities as negotiated into land claim legislation (figure 13, chapter six) influenced by narratives such as the Water Heart story, where common epistemological ground was sought (figure 12, chapter six). The triadic relationship, explained in initial community workshops, is established through political commitments but founded on accepted common understandings of social-ecological systems. The outer fractured circular conceptualization indicates that northern governments and local organizations have historically operated in isolation of one another (Sandlos 2007, John-Brown 2005) which reduced opportunities for meaningful interaction; an omnipresent concern re-stated during the start of many meetings I attended. In chapter seven I suggested that the ability and success of people and organizations to influence one another occurs through varying strategies of interaction and engagement. Government agencies and local organizations may be linked through common commitments in resource management programs as part of a multi-level nested characteristic of institutions (Bartley et al. 2008). This research however, suggests that government agencies and local organizations are also often committed to broader organizational policies that may not be compatible with the NRM programs being touted locally or even community-based resource management ideals. The outer dimension of figure 16 indicates that while shared understanding occurs in local planning and management, extra-local strategies and actions may be undertaken by actors that challenge and compromise the benefits of shared understanding by moving the relationship further apart. Consideration of forms of strategic engagement is as equally important in the development of resource management institutions as is the influence of inter-subjectivity in social relations.

Non-governmental organizations may find themselves with an increasingly valuable role to play in northern resource management. Historically perceived of as peripheral to conventional resource management, ENGOs provide additional perspectives, skills, and possibly solutions to complex issues. Operating from the boundary, with respect to accepted NRM organizations, provides ENGOs with an opportunity to freely challenge powerful interests while at the same time becoming a functioning part of the change mechanism. Their effect on NRM takes place through their supplementary contributions and role in planning as well as through indirect political influence. Non-governmental organizations are not part of the formal political relationship between governments but because they are accepted as a contributing partner they can affect the course of development of institutions using unorthodox approaches from alternative perspectives (figure 16).

Assertions have been made by commons and resource management scholars that shared understandings and power dynamics are important. However, the interplay between these two approaches to knowledge has often been lost in the emphasis of the predominance of one over the other, originating in a consensus or conflict model. Rather, I suggest a more fertile approach is to empirically explore these practices as co-existence, interaction and evolution.

As scholars and practitioners frequently stress, novelty and innovation are needed to address increasing complexity and messiness in environmental governance. This research uses the related cases of GBL watershed management planning and the protection of the aboriginal cultural landscape of Sahoyúé-ʔehdacho to illustrate approaches to innovation in resource management. Building on the concept of Cleaver's institutional bricolage I showed how a cultural approach to institutional theory might explain and increase our understanding of the relationship between institutionalized rules and social life. Approaching northern NRM from the cultural side of institutions illuminates how multiplicity and contradictions among the various elements of an institutional order shape the perspectives and strategies of actors (Bartley et al. 2008). From the notion that elements of existing formal and informal institutions are combined to create new ways to approach NRM institutions, this research suggests the concept of practical understanding as the dynamic interplay of power relations, political engagement, and epistemological diversity as an integral element of changing the way people perceive governance. With its basis in social practice, practical understanding requires conceptual tools for empirical investigation of innovation in NRM.

Bourdieu's practice theory has been little-used in resource and environmental sociology, apart from a selective use of its concepts which reduces its explanatory effectiveness with regards to social structure and agency. Bourdieu's theory of practice, with its array of conceptual tools, could contribute to NRM if it is understood as both a reflexive and preconscious thesis of action. Power dynamics are imbedded in multi-directional and fluid strategies, which are influenced through habitus. Unlike highly abstracted interpretations of social practice, a diffuse practice theory could guide empirical explorations of social processes constituted in place and locality from the perspective of habitus while delving into the incentives, sources and strategies of power relations. Together, practice theory and institutional bricolage provide a vantage point from which to examine the interaction between interpretive-subjective and objective-structural elements of northern resource management.

Language is a powerful influence in resource management, most evident in the historical exclusion of Aboriginal peoples from NRM participation, decision making and governance. Recent scholarship suggests that with new NRM institutions, such as co-management, structural barriers based on the use of language still predominate. One of the contributions to this critical body of literature is the way the language of NRM can shift to influence elemental discourses that are more inclusive of land and social values infused in resource management. The power of language that derives from structural authority in legislated land claims provides a means with which to challenge the dominant discourse. In the window that is provided by linguistic confrontation, new terminologies and meanings can be introduced that unsettle and provoke conventional resource management thinking. Both of these cases are based on the premise that for collaborative management to be successful, the discourse requires a change to re-envision land, resources and management in terms of culture, beliefs and practices. This research suggests a realistic and modest contribution in that environmental leaders' cultural vocabulary of the land is expanded so that contemporary land use practices and management have a broadened foundation from which to develop. Such a foundation is the basis for a developing professional literacy amongst resource managers at state as well as local levels.

This research contributes to government resource management practices, and indirectly provides direction to resource industries and companies interested in a new relationship with local communities. In northern Canada there is a perceptible shift in how federal government agencies work in and with communities with regards to resource management and development issues. Increased focus on active collaboration between state managers and local resource managers has coincided with a decentralization of resource management in the form of regional and community-based programs. Natural resource management practices can be advanced by re-envisioning what professional literacy means for managers. Such literacy is not focused solely on specialization and particularity using the best technical practices and literature from one discipline. Rather, a new literacy involves seeing more clearly and critically the multifaceted consequences of resource management decisions, understanding the contextual complexities of resource management, and the development of innovative resource management practices (Howitt 2001). This research suggests that the limitations of conventional resource management practices 'on the ground' are well understood by local community leaders and outside managers and scientists. It is in the recognition of limitations and humility of resource management officials, managers and scientists that changes to perceptions, understandings and practices might be set in motion.

This research contributes to the ongoing discussion of the place, responsibilities and roles that resource industries could assume in resource management (see for example, O'Faircheallaigh 2008, Armitage et al. 2007 O'Faircheallaigh 2007). With the recognition of aboriginal land rights (and influence on resource development) there is increased utilization of negotiation and agreement-making to structure natural resource relationships between Aboriginal peoples and industry interests. Government agencies are often compromised and limited by dual natural resource conservation-development responsibilities. At the same time, empowered local communities and powerful commercial interests are exploring new avenues for innovative approaches to economic development. To be sure, the ideological tenets of industrial resource extraction remain unchanged in that access and control of resources for long term benefit is of primary concern. However, the commitment of companies to corporate social responsibility policies and portrayal of a positive corporate image to stakeholders and the public provides the impetus for new relationships to develop. The shift in balance of power from the state to a co-management model directed by a professional literacy that addresses socio-cultural, politico-economic, and bio-physical complexity has greater potential to shape resource management practices than previously witnessed.

PROJECT LIMITATIONS AND FUTURE RESEARCH

A limitation of this research is the lack of gaze on industry practices and influence in NRM. As noted above, the increasing participation of aboriginal communities in industrial economic activities means that they have the potential to significantly alter the course of business practices, or conversely, become implicated and inculcated in the investment-exploration-exploitation business cycle themselves. The inclusion of industry in this research could provide further insight into the possibilities and limitations of shaping new resource management practices. The exclusion of commercial interests was not a result of design simplicity. In both the GBL management plan process and planning for protection of the aboriginal cultural landscape of Sahoyúé-ʔehdacho, industry officials declined to participate. The reasons given were either a preference to wait for the Sahtu Land Use Plan as guidance in their watershed activities or that they did not have third party subsurface interests in the peninsulas and so felt no need to participate. Notwithstanding this limitation, the research would clearly be far richer and more telling of the fundamental issues behind corporate social responsibility policies and contradictions between capitalism and aboriginal economic development if industry actors were to be included. More broadly, an opportunity exists to explore the role of markets and incentives, specifically in resource industries in northern co-management. The interest demonstrated by aboriginal communities to become active players in resource management in order to increase their influence in industrial development practices suggests an opening for new research. However, such an inclusive research proposal would have been difficult to complete as an ethnographic based research project within the time constraints of a PhD program. The benefit of limiting my research to government, non-governmental organizations, and community leaders was that it allowed me to focus on the legislators and decision makers (historic as well as contemporary through land claims and co-management) who are more directly responsible for the long term care and custodianship of northern lands.

My decision to live in Délı̨ne while doing the research provided numerous benefits but also established practical limitations. The ethnographic richness of living in an aboriginal community focused a great deal of my analysis on community practice and aboriginal leadership but reduced my ability to access government leadership and working environments. This limitation is, for the most part, a consequence of choosing to live in a physically remote location that is geographically distant to regional, territorial and federal decision-making centres. This geographic limitation reduced my ability to delve further into the unchallenged stories and metaphors that situate western science in NRM (Cruikshank 1998, Howitt and Suchet-Pearson 2003).

The use of two related case studies was valuable as it broadened my data. The cases studies provided social and cultural interconnections between historical events and importantly increased the breadth of my research in that it provided a broader context to northern resource management. Despite these benefits, the analysis of two cases that involved different governmental actors reduced the depth of focus I could place on one case over another. Moving back and forth between two cases limited the phenomenological exploration of individual people's lived experience and deep understanding of the land as part of their habitus. A focus on one case study might have benefitted my ethnographic based exploration such that the analysis of aboriginal and non-aboriginal habitus's would have had greater interpretive strength with respect to understanding people's approaches to land management. The decision to use two cases however, provided better temporal and spatial continuity as issues were interrelated and originated from similar historical-political events, the same geographic area was examined lending contextual richness to the analysis, and interactions among common actors between the two cases lent a realist validity (Hammersley 1992) to the complexity involved in resource management in northern land claim regions.

Ethnographic research into the development of impact benefit agreements and aboriginal ownership in northern Canada represents a rich qualitative research area that has yet to be fully explored for its socio-cultural influence on economic development. The frequent interconnections and relationships among participants in these two cases studies indicate that an actor network analysis could be beneficial to examine the relationships and influence among actors. With the development of stronger community-industry relationships the inclusion of industry actors in a network analysis in research could shed light on cross cultural power relations. An actor network analysis could provide structural explanations of resource management relationships. However, what is also needed in an examination of social practice is a phenomenological exploration of how people's lives and experiences influence their conceptions of NRM and more importantly their openness to new approaches. The potential for using a diffuse theory of practice may be valuable as a guide to a deep exploration of both the structural and phenomenological elements of social practices.

CONCLUSION

The concept of practical understanding developed in this dissertation is suggested as integral to the evolution of northern resource management. Practical understanding in NRM, the unpredictable interface between shared understanding and political engagement, indicates that relations between community, government and ENGOs cannot be assumed to be progressive in a development sense. The GBL management plan and process of protection for the Sahoyúé-ʔehdacho aboriginal cultural landscape has the potential to contribute to understanding resource management in a new way.

With a powerful foundation in the Sahtu regional land claim and Délįne community self government agreement, an approach to resource management founded on epistemological and ontological pluralism in planning, respect for value systems, cultural institutions and deeply entrenched ways of being-in-place, might offer new ways to understand NRM. These cases reveal an acceptance of the economic and globalized necessity of resource development but re-establish the centrality of worldviews and local institutions that are affected by development. Practical understanding is an intersubjectively-driven but power-laden approach to creating institutions for resource management. Like the concept of institutional bricolage, resource management does not take place within a bounded context. As a relational process, resource management can be envisioned as informal and flexible with untold possibilities and permutations. This dissertation describes how such possibilities might unfold illustrated by the cases of collaborative watershed planning and aboriginal landscape conservation.

Co-management in the Canadian north has been institutionalized through land claim agreements (Irlbacher-Fox 2004, Natcher 2005, Kofinas 2005, Stevenson 2006, Spak 2005) and to a large degree accepted as the relational basis from which environmental governance should proceed. A challenge to much of the research on co-management, the findings in this dissertation contribute to an understanding of co-management as neither a colonial project nor an idealized post-colonial environmental governance system. Rather, co-management in this case is a process where gains from social learning, trust and inter-subjectivity encounter power relations and forms of domination with dynamic but variable outcomes. Despite its challenges, the potential for co-management to create a discursive space for the co-existence of formal and informal resource management and land use institutions is what keeps it at the forefront of so many discussions, research agendas, and actual practices.

This dissertation recognizes the inseparability of culture and nature toward a rethinking of how people should perceive natural resources. My experiences in Délįne indicate that a more authentic account of management takes into consideration historical events, contemporary changes to political, economic and cultural landscapes, interpersonal relationships, and multiplicities of meaning in planning. In this dissertation natural resources and management are admittedly still recognized as products to be controlled and manipulated for economic gain. I also recognize however, that northern communities continue to struggle to find ways that balance their economic survival, cultural and spiritual survival, and generational survival. The land and its resources are an integral part of this balancing act.

The significance of a practical understanding approach to NRM is that it offers a cultural framework with which to explore institutional hybridity. Such a framework requires an examination of the ways in which we perceive, conceive and actively apply culture and power relations in resource management planning that is predominated by the increasingly globalized nature of natural resources. This research examines collective action through the exploration of the ways that socially embedded arrangements complement new bureaucratic arrangements and vice versa. Practical understanding is thus one of "the ways in which creativity arises out of the situation of human beings engaged in particular relations of force and meaning, and what is made out of the possibilities of that location" (Li 2007: 26-27).

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Appendix A. Post-Contact Historical Events at Great Bear Lake

(Adapted from Rushforth 1977, 1988)

1789-1800	Sahtugot'ine initial contact with European explorers and traders.
1799-1814	North West Company trading post near the present day site of Délı̨ne (Fort Franklin).
1805	North West Company post established at present day site of Tulita (Fort Norman)
1810-1822	North West Company trading post on Mackenzie River between the Keele and Great Bear Rivers.
1822-1851	Hudson's Bay Company establishes and maintains a post (Fort Norman) at Tulita
1823	Cease in fighting between Dogrib (Tlicho) and Yellowknife (Akaitcho) Aboriginal people.
1825-1827	Explorer John Franklin winters at Délı̨ne.
1852	Old Fort Rae established.
1864-1872	Fort Norman moved to and maintained at Fort Franklin.
1864-1878	Father Emile Petitot, OMI, travels throughout Hare, Bear Lake, and Dogrib lands
1872	Fort Norman re-established at Tulita.
1885	Permanent Catholic mission constructed at Fort Norman (Tulita); Sahtugot'ine become Roman Catholic.
1902	Measles epidemic sweeps through the Mackenzie District.
1908-1909	Trading post operating at Hornby Bay (northern part of McTavish Bay, Great Bear Lake.)
1910-1933	Trading post operating at four different times at Dease Bay (Dease Arm, Great Bear Lake).
1912-1920	A few Sahtugot'ine attend Catholic school in Fort Providence, NWT.
1914	"Bear Lake Dogribs" cease trading at Fort Rae.
1920	RCMP established at Fort Norman. Oil found at Norman Wells, NWT.
1921, 1922	Sahtugot'ine sign Treaty 11 at Fort Norman (Tulita).
1928	Influenza epidemic throughout the Mackenzie District.
1929	Pitchblende discovered at Port Radium on eastern shore of Great Bear Lake.
1931	First shipment of eight tons of radium-bearing ore sent from Port Radium to Port Hope, Ontario along "Highway of the Atom". Over 220 tons shipped in total.
1931-1940	Port Radium mine operates as a radium and uranium mine until 1940.
1941	Canadian government purchases Port Radium mine.
1942-1943	Canol Pipeline and road constructed from Norman Wells to Whitehorse, Yukon.
1945	US Manhattan Project's atomic bombs dropped on Japan fuelled by Great Bear Lake and Congolese uranium unbeknownst to Sahtugot'ine
1949/50	Hudson's Bay Company establishes and maintains trading post at Fort Franklin (Délı̨ne). School and Roman Catholic mission constructed. Sahtugot'ine build permanent houses at Délı̨ne/Fort Franklin.
1952	Fort Franklin (Délı̨ne) Population: 238.
1942-1960	Crown-owned Eldorado Mining and Refining Company mines for uranium until 1960 before leaving the site.
1960	Nursing Station constructed at Fort Franklin.
1963	Fort Franklin Co-operative store (Co-op) established.

1964	Fort Franklin (Délı̨ne) Population: 289.
1965-1967	Electricity, government low rental housing, snowmobiles and other Western goods arrive in Fort Franklin. Modern nursing station built.
1964-1982	Echo Bay Mines takes over operations and mines for silver. Echo Bay Mines ceases mining operations at Port Radium in 1982 after covering most tailings and garbage with waste rock, moving all valuable equipment to nearby mining operations and destroying buildings on-site.
1970	Indian Brotherhood of the NWT (precursor to Dene Nation) established.
1969	Fort Franklin population: 360.
1973	Renegotiation of Treaty 11 and land settlement initiated.
1975	Mackenzie Valley Pipeline Inquiry ("Berger Inquiry").
1978	Indian Brotherhood formally changed to Dene Nation, in Fort Franklin.
1981	Délı̨ne population: 521.
1988	Délı̨ne purchases Radium Gilbert for $1 to haul community supply barge.
1991	Délı̨ne population: 551.
1993	*Sahtu Dene Métis Comprehensive Land Claim Agreement* signed
1993	Fort Franklin community name change to Délı̨ne.
1996	Délı̨ne population: 616.
1996	Independent testing indicates high levels of radiation in Radium Gilbert ore hauler. Ship is abandoned after unsuccessful attempts to sell it for scrap.
1997	Délı̨ne Self-Government Negotiations begins.
1998	Délı̨ne Uranium Committee formed out of concerns surrounding the deaths of ore carriers from cancer.
1999	Canada-Délı̨ne Uranium Table (CDUT) formed by the Délı̨ne First Nation and federal government to address concerns about the human health and environmental impacts of Port Radium (Action Plan).
1999	Community-based Délı̨ne Uranium Team formed as part of CDUT action plan.
1999	Documentary on Port Radium by Peter Blow, "Village of Widows", released.
2003	Délı̨ne Self-Government Agreement-in-Principle (AIP) signed in Délı̨ne.
2004	Délı̨ne Land Corporation signs historic first Access and Benefits Agreement for oil and gas exploration/seismic work near Délı̨ne.
2004-2007	Mackenzie Gas Pipeline Joint Review Panel is established to evaluate the potential social and environmental impacts of the project.
2005	Unsafe and abandoned Radium Gilbert uranium ore freighter removed from GBL
2005	Release of "The CDUT Final Report Concerning Health and Environmental Issues Related to Port Radium Mine".
2005	Alberta Star junior mining company begins drilling program at Contact Lake near Port Radium. Uranium prices at record high prices.
2005	Great Bear Lake Watershed Management Plan completed for inclusion in SLUP.
2006	Délı̨ne population: 543.
2006	$600-million Great Bear River hydroelectric dam project cancelled. Délı̨ne micro-hydro project planning underway. Documentary on Port Radium, "Somba Ke: The Money Place" by David Henningson, released.
2007	Remediation work at former Port Radium mine begins.
2007	Sahoyúé-ʔehdacho Working Group Final Report released as part of NWT-PAS. First final report completed under the 1999 NWT-PAS.
2007	Federal Memorandum of Understanding (MOU) signed outlining commitment to work towards permanent protection and cooperative

	management of Sahoyúé-ʔehdacho National Historic Site of Canada. MOU includes federal funding commitment of $5 million dollars over 5 years and $700,000 per year thereafter. Negotiations with Parks Canada on level of protection ongoing.
2008	Délı̨ne places moratorium on new uranium exploration and development on Délı̨ne District lands until recommendations of the Canada-Délı̨ne Uranium Table have been addressed to the satisfaction of the community.
2008	Délı̨ne celebration marks end of community self-government negotiations with the federal and territorial governments.

Appendix B. Evidence of Field Work[291]

August 28, 2002	Meeting with DFN Chief and Sub-chief	Délı̨ne
August 29, 2002	Délı̨ne Uranium Team Meeting	Délı̨ne
August 29, 2002	DFN Band Council Meeting	Délı̨ne
October 4, 2002	ACADRE Network Meeting with Délı̨ne members	Edmonton
October 16, 2002	Teleconference call meeting with Délı̨ne DUT re: DKC	Edmonton
October 23, 2002	Teleconference call meeting with Délı̨ne DUT, ARI re: DKC	Edmonton
January 27, 2002	Meeting at ACADRE re: DKC	Edmonton

February 18-20, 2003	DKC Workshop	Délı̨ne
March 13, 2003	DKC and CURA Proposal meeting	Edmonton
May 5, 2003	DKC and CURA Proposal meeting	Edmonton
May 6, 2003	Délı̨ne DKC Seminar at U of A First Nations Education Dept	Edmonton
May 7-9, 2003	CU Expo with Délı̨ne DKC community members	Saskatoon
May 22, 2003	Teleconference call meeting with Délı̨ne re: DKC and CURA	Edmonton
June 12, 2003	Teleconference call meeting with Délı̨ne re: DKC and CURA	Edmonton
July 17, 2003	Teleconference call meeting re: CURA funding	Délı̨ne
August 29, 2003	DKC Action Group Meeting	Délı̨ne
September 22, 2003	DKC Action Group Meeting	Délı̨ne
September 23, 2003	SRRB co-management meeting re: DKC	Norman Wells
November 24-27, 2003	GBLMP Technical Working Group Meeting	Délı̨ne

February 2, 2004	Sahoyúé-ʔehdacho Working Group (SEWG) Teleconf. Call	Délı̨ne
March 1-3, 2004	SEWG Meeting	Délı̨ne
June 28-30, 2004	GBLMP Technical Working Group Meeting	Délı̨ne
July 21, 2004	SEWG Teleconference call meeting	Délı̨ne
August 5, 2004	SEWG Teleconference call meeting	Délı̨ne
October 22-24, 2004	GBLMP Meeting	Délı̨ne
October 26-27, 2004	SEWG Meeting, Parks Canada WBNP Office	Fort Smith
November 8, 2004	SEWG Teleconference call meeting	Délı̨ne
December 13, 2004	SEWG Teleconference call meeting	Délı̨ne

January 5-7, 2005	GBLMP Leadership Meeting	Délı̨ne
January 12-13, 2005	SEWG Meeting	Délı̨ne
March 2, 2005	SEWG Teleconference call meeting	Délı̨ne
March 3, 2005	GBLMP Teleconference call meeting	Délı̨ne
March 7, 2005	GBLMP Teleconference call meeting	Délı̨ne
March 29, 2005	SEWG Teleconference call meeting	Délı̨ne
April 15-16, 2005	Délı̨ne Leadership Meeting with Parks Canada CEO	Ottawa
April 26, 2005	SEWG Teleconference call meeting	Edmonton
May 4-5, 2005	SEWG Meeting	Délı̨ne
May 10, 2005	GBLMP Elders Meeting	Délı̨ne
May 11-13, 2005	GBLMP Meeting	Délı̨ne
May 19, 2005	DFN Band Council Meeting Research Presentation	Délı̨ne
May 31, 2005	Sahtu Land Use Plan Délı̨ne Meeting	Délı̨ne
June 3, 2005	SEWG Teleconference call meeting	Délı̨ne

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[291] As well as attending the meetings listed above, I also received all meeting agendas, minutes, working group emails, and supporting documents for any other meetings which I was not available to attend in person or participate by telephone.

June 22, 2005	DUT Health Report Meeting	Délı̨ne
June 22, 2005	Port Radium Remediation Open House	Délı̨ne
August 1, 2005	Tuktut Nogait National Park Sahtu Extension Celebration	Délı̨ne
August 10, 2005	Alberta Star (Exploration Company) Open House	Délı̨ne
August 15-18, 2005	NWT Dene Assembly	Délı̨ne
August 28, 2005	Délı̨ne Renewable Resource Council meeting	Délı̨ne
September 9, 2005	SEWG Teleconference call meeting	Edmonton
October 11, 2005	DFN Band Council Meeting	Délı̨ne
October 24, 2005	Sahoyúé-ʔehdacho Open House	Délı̨ne
October 25-26, 2005	Sahoyúé-ʔehdacho Délı̨ne Negotiation Planning Workshop	Délı̨ne
November 7, 2005	Sahoyúé-ʔehdacho pre-workshop meeting (evening) – Grey Goose Lodge Délı̨ne	
November 8, 2005	Sahoyúé-ʔehdacho Directions Confirming Workshop	Délı̨ne
November 8, 2005	Sahoyúé-ʔehdacho leadership meeting (evening)	Délı̨ne
November 9, 2005	Sahoyúé-ʔehdacho Directions Confirming Workshop	Délı̨ne
November 10, 2005	Sahoyúé-ʔehdacho Workshop Public Presentation	Délı̨ne
December 16, 2005	SEWG Teleconference call meeting	Délı̨ne
February 7-9, 2006	Sahtu Renewable Resource Board meeting	Délı̨ne
March 8, 2006	SEWG Teleconference Call meeting	Délı̨ne
March 15-16, 2006	MVEIRB Socio-Economic Impact Assessment Workshop (Invited)Yellowknife	
March 29-30, 2006	Sahoyúé-ʔehdacho Negotiation Prep. Leadership Meeting	Délı̨ne
April 3, 2006	Mackenzie Gas Pipeline Joint Review Panel Hearing	Délı̨ne
September 8, 2006	SEWG Teleconference call meeting	Edmonton
November 27, 2006	SEWG and Sahoyúé-ʔehdacho Negotiation Teleconf. call	Edmonton
January 8, 2007	SEWG and Sahoyúé-ʔehdacho Negotiation Teleconf. Call	Edmonton
January 11, 2007	SEWG and Sahoyúé-ʔehdacho Negotiation Teleconf. Call	Edmonton
April 3, 2007	Délı̨ne Land Corporation – Délı̨ne Cultural Plan. Workshop	Délı̨ne
April 11, 2007	SEWG Final Report Review Meeting	Délı̨ne
April 12, 2007	Délı̨ne Review of Sahtu Land Use Plan	Délı̨ne
August, 2008	Délı̨ne leadership presentation re: research findings	Délı̨ne

Appendix C: Research Interview Guide

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Notes:

a. These questions are intended to be a guide in an informal interview. As such, the flow of the conversation will direct the order and wording of the question.
b. Depending upon who is being interviewed, the wording of the questions will be modified accordingly.

1. Other than the GBLMP or Sahoyúé-ʔehdacho projects, can you tell me about some of the natural/renewable resource management projects in which you've worked closely with people from outside agencies [communities]

2. In the years that you've worked with outside [community] people on natural resource management projects, has the way that you think about resource management changed? In what ways?

3. When outside resource management agency [community] people explain their methods or practices to you, how does this change the way that you think about resource management?

4. In the past when working with outside agencies [local community] people, can you describe times when their methods or way of explaining things helped you to understand things better?

5. How would you describe your relationship with outside [community] people when working together to make decisions about natural resources?
    a. What sort of experiences can you describe which were positive and had good results?
    b. Can you describe any experiences which were negative and didn't work well?

6. What do you suggest would improve the way that outside agency people [community people] work together to manage resources in the Deline District?

7. In the GBLMP [or Sahoyúé-ʔehdacho] projects, how has the process been different, if at all, from others that you've worked on?

8. What is your understanding of natural or renewable resource management? (How would you explain to me what resource management means to you?)

9. How do you think outside agency [community] people see/understand resource management in general?

Appendix D. Délı̨ne First Nation Letters of Support

DÉLINE DENE BAND COUNCIL
P.O. Box 158
Déline, NT X0E 0G0
Tel: (403) 589-3151 Fax: (403) 589-4208

August 20, 2003

Chief Raymond Tutcho
Deline Dene Band
Box 158
Deline, Northwest Territories X0E 0G0

To whom it may concern:

This letter is to confirm the Déline Dene Band's continuing support of Ken Caine's proposed PhD research development and research project with the community of Déline during 2003 and 2004.

Since Ken's personal visit to Deline in August 2002, in which many community leaders in Deline spoke to Ken about Deline research priorities, he has contributed to the community in many ways. Ken is personally involved with community members in assisting the community develop a research proposal for the Deline Knowledge Centre (DKC). Over the past year, Ken has helped organize research meetings at the University of Alberta, promote the DKC in various university departments, and participated in the DKC Planning Workshop in Deline in February 2003. In July 2003, he assisted the community in writing and submitting a Community University Research Alliance (CURA) proposal for the DKC.

Ken has made the decision to move to Deline and live in the community as part of his PhD research program. Over the summer of 2003 while preparing for his final term of doctoral studies, he has spent time with community members on a personal level learning about the people and land of Deline. During this time he also volunteered his time, on a daily basis, to the Deline Uranium Team in developing their library system which is important to the Deline Dene Band and the DKC. Ken also worked with a

Appendix G: Typologies of Traditional and Western Scientific Knowledge: Epistemology, Uses and Resource Management Systems (Adapted from Houde 2007, Government of Canada 2004, Berkes 1999, Roberts 1994, Tsuji and Ho 2002)

Traditional Knowledge	↔	Western Scientific Knowledge	
Assumed to be the truth	↔	Assumed to be a best approximation	Epistemology
Sacred and secular together	↔	Secular only	
Teaching through story-telling	↔	Teaching through excessive instruction	
Learning by doing and experiencing	↔	Learning by institutionalized education	
Oral or visual	↔	Written	
Integrated (based on whole systems)	↔	Analytical (based on subsets of whole)	
Intuitive	↔	Model or hypothesis-based	
Holistic	↔	Reductionist	
Subjective	↔	Objective	
Lengthy acquisition of data	↔	Rapid acquisition of data	Knowledge in Use
Long-term wisdom	↔	Short-term prediction	
Powerful predictability in local areas	↔	Powerful predictability in principle	
Weak in predictive principles in distant areas	↔	Weak in local areas of knowledge	
Models based on cycles	↔	Linear modeling as first approximation	
Explanations based on examples, anecdotes, and parables	↔	Explanations based on hypotheses, theories, laws	
Classification a mix of ecological and useful application; non-hierarchical differentiation; includes everything natural and supernatural	↔	Classification based on evolutionary relationships, hierarchical differentiation, excludes supernatural	
Collective rationality	↔	Individual rationality	Components of Resource Management System
Decentralized authority	↔	Centralized (bureaucratic) authority	
Administration by elders and hunting leaders	↔	Administr. by government managers	
Rules/enforcement: Value-driven customary law; unwritten rules; compliance based on cultural values and social controls	↔	Regulation driven - written laws and regulations; formal enforcement and regulatory system	
Decision-making a consensus process involving those with knowledge and practical experience (elders/leaders)	↔	Decision-making by government managers and politicians	
Allocation through consensus-based and/or community decisions, based on necessity	↔	Allocation based on economic / political rationale; optimum use / max. benefit	
Harvesting practices opportunistic, communal harvesting and sharing of resources	↔	Selective harvesting focused on protection of females/young; individual harvesting and use	
Conservation integrated with management practices	↔	Conservation conducted by external agencies and based on scientific data	
Research and harvesting integrated; greater emphasis on qualitative approach	↔	Research and management compartmentalized; quantitative methodology & focus on numbers	

Appendix H. Great Bear Lake Management Plan Chronology

(Adapted from GBLWG 2005b, Hamre 2005, McCullum and Hamre 2003)

August 1986 – Great Bear Lake Management Committee formed to assess the health of GBL fishing and make recommendations on total allowable harvest and user allocations. Its focus was on reducing catch and possession limits for most fish species on the lake and developing special fishing licences

September 1993 – Sahtu Dene and Métis Comprehensive Land Claim Agreement signed. Section 13.8.42 stated that "the Sahtu Renewable Resources Board shall determine as a matter of priority to establish a committee in respect of Great Bear Lake."

November 1994 – Great Bear Lake Management Committee activities cease.

October 1997 – Great Bear Lake Advisory Committee formed to advise the community of Délı̨ne and government agencies (DFO and GNWT) on fishery management issues. Representation is from Délı̨ne, SRRB, DFO and ENR but committee is smaller in size than the previous GBL Management Committee.

January 2000 – Publication of Sahtu Heritage Places & Sites Joint Working Group *Rakekée God'é Godi: Places We Take Care of.*

2000 – Initial discussions between Raymond Taniton, then Chief of Délı̨ne, and David Livingstone, Director, Renewable Resources and Environment, INAC, on the need for better management of GBL.

March 2001 – DIAND Information Paper by David Livingstone on *Protecting Great Bear Lake.*

April 2001 – Comprehensive literature review and state of knowledge overview completed by Jacques Sirois *What the "White Man" Knows About the Natural History of Great Bear Lake, Northwest Territories, Canada.*

June 2001 – Last meeting of the GBL Advisory Committee.

April 2002 – Discussions between environmental non-governmental organization CPAWS-NWT and Délı̨ne community leaders regarding interest from Délı̨ne in pursuing a process for ensuring GBL ecosystem integrity and management.

August 2002 – Discussions in Délı̨ne to determine how to proceed in which Raymond Taniton takes on role of GBL management community co-ordinator.

October 2002 – First Great Bear Lake workshop held in Délı̨ne. Consensus on a vision for GBL stated that: "Great Bear Lake must be kept clean and bountiful for all time."

February 2003 – CPAWS-NWT provide GBLWG membership with *A Water Management Approach for Great Bear Lake, NWT: Lessons Learned from Other Jurisdictions.*

March 2003 – A Working Group Workshop in Délı̨ne reviewed, revised and gave approval in principle to a draft GBL management framework.

June 2003 – First Technical Working Group Meeting takes place in Yellowknife.

November 2003 – Technical Working Group Meeting in Yellowknife. Focus is on cultural integrity of Great Bear Lake in Management Plan; Conservation planning within the GBL Watershed; Revision of Principles and Standards for the GBL Management Plan; and development of a Research and Monitoring Plan.

November 2003 – Community meeting in Déline to update community members, especially elders, on the TWG meetings and progress of drafting a Management Plan for the GBL Watershed.

January 2004 - Great Bear Lake Working Group Workshop in Déline. Two elders sessions take place prior to main GBL meeting: elders' views of the "waterheart" and preparations for the larger GBL Working Group meetings. Main meeting allows discussions with the community about the plan's policies and prohibitions and the development of research and monitoring plan. Initial submission to Sahtu Land Use Planning Board of Management Plan.

January 2004 – Publication of *State of the Aquatic Knowledge of Great Bear Watershed.*

March 2004 – Publication of *Great Bear Lake State of Knowledge of the Terrestrial Environment* and *Informing Process: The Use of Maps and GIS in Developing the Great Bear Lake Watershed Management Plan.*

March 2004 – First draft of GBL Management Plan completed for review.

June 2004 – Elders Workshop followed by a Technical Working Group meeting in Déline to review and provide comments on the draft GBL Management Plan. Because of concern over increasing natural resource exploration and development in the region without a Sahtu land use plan, the draft GBLMP was amended and submitted to the Sahtu Land Use Planning Board to be incorporated into the next draft of the Sahtu Land Use Plan.

October 2004 – GBL Management Plan Workshop in Déline to address incomplete sections of the management plan.

November 2004 – Release of the Water Heart Graphic Summary as plain language report of activities and results to date.

January 2005 – Community meetings with GBLMP Facilitator for input and perspectives from community self-government leaders.

May 2005 – Final GBL Management Plan workshop in Déline including Research and Monitoring Plan to receive community support and finalize the plan.

June 2005 – GBL Management Plan Submitted to Sahtu Land Use Planning Board for inclusion in Draft Sahtu Land Use Plan.

Appendix I. Sahoyúé-ʔehdacho Chronology

(Adapted from SEWG 2007)

1940s – First archaeological surveys on Great Bear Lake, and particularly on Dog Point, the north end of the Grizzly Bear Mountain portage.

1960 - 1980s – Extensive archaeological surveys along the shores of Great Bear Lake, including Grizzly Bear Mountain/Scented Grass Hills.

1986 – Workshop on "Park Development in Relation to Claims" - Considerations on how to manage Grizzly Bear Mountain – focus due to its centrality as point of reference for numerous legends.

1987 – Archaeological Studies: Prince of Wales Northern Heritage Centre supervised archaeological studies at Grizzly Bear Mountain and Scented Grass Hills.

1990 – Scented Grass Hills added to list for park management when Déline Dene Band approaches Parks Canada for assistance

1990 – Oral History Studies: In collaboration with Parks Canada, the community began preliminary oral history studies on Grizzly Bear Mountain and Scented Grass Hills.

1991 – Traditional Knowledge Geography: Continuation of the 1990 study to document the traditional geography of Keith and McVicar Arms of the Great Bear Lake.

1993 – Sahtu Dene and Métis Land Claim Agreement: Under Section 26.4.3 of the agreement Grizzly Bear Mountain and Scented Grass Hills are listed as heritage places and sites.

1995 – Collection of Oral History for Grizzly Bear Mountain and Scented Grass Hills.

1995 – Archaeological Survey: Archaeological information was gathered for the Grizzly Bear Mountain and Scented Grass Hills National Historic Site proposals.

November 1996 – Preparation and presentation of Historic Sites and Monuments Board of Canada (HSMBC) Agenda Paper – Narrative and Landscape: Grizzly Bear Mountain and Scented Grass Hills as Repositories of Sahtu Dene Culture, by Chris Hanks.

November 1996 - HSMBC decision and recommendations - The board unanimously stated that Grizzly Bear Mountain and Scented Grass Hills, as defined in the paper presented, are associative cultural landscapes of national historic significance.

December 5, 1996 – Letter from Déline Dene Band Council and Déline Dene Land Corporation to DIAND Minister Irwin requesting land withdrawal for Grizzly Bear Mountain/Scented Grass Hills.

December 5, 1996 – Letter from Déline Dene Band Council and Déline Dene Land Corporation to Canadian Heritage Minister Copps requesting recognition of the national significance of Grizzly Bear Mountain/Scented Grass Hills and support for interim land withdrawal pending discussion of protected area status.

1997 – Tom Nesbitt, Nancy Morgan, and Andrew Thompson S-E Options paper "Grizzly Bear Mountain, Scented Grass Hills and Sir John Franklin's 1825 Wintering Quarters: Options for Protecting Cultural Heritage in the Sahtu Area"

1999 – Commemoration of the national historic significance of Grizzly Bear Mountain, Scented Grass Hills, Délı̨ne Fishery and Franklin's Fort by Canadian Heritage.

1999 – Protected Areas Strategy signed by both GWNT and DIAND.
The Protected Areas Strategy was developed in partnership with communities, regional organizations and land claim bodies for protecting natural and/or culturally significant areas within the NWT.

1999 – Scented Grass Hills/Grizzly Bear Mountain Parks Canada Workshop. During this workshop the community also outlined their interest in proceeding with advancement of this site within the PAS.

1999 – Délı̨ne Land Corporation approves Délı̨ne Dene Band Council to be the coordinating voice and channel for communication between Délı̨ne and appropriate government agencies with respect to Scented Grass Hills/Grizzly Bear Mountain Parks project.

1999 – Sahtu Land Use Planning Board supports interim protection (including land withdrawal) and permanent protection of Scented Grass Hills/Grizzly Bear Mountain.

January 2000 – The Sahtu Heritage Places and Sites Working Group completed "Places we take care of". This report details the culturally and ecologically important sites of the Sahtu Dene and makes recommendations for protection for each of the sites (Grizzly Bear Mountain/Scented Grass Hills, pg 34 and 35).

January 14, 2000 – Sahtu Secretariat Incorporated officially supports efforts of Délı̨ne Dene Band to have Grizzly Bear Mountain (Sahoyúé) and Scented Grass Hills (ʔehdacho) recognized as protected area sites.

February 9, 2000 – Commemorative Integrity Statement drafted for Sahoyúé-ʔehdacho Historic Site describing the integrity or health and wholeness of the site with emphasis on the fundamental importance of these two sites to cultural well being of the Sahtu Dene.

March 9, 2000 – Délı̨ne Land Corporation supports protecting Grizzly Bear Mountain (Sahoyúé) and Scented Grass Hills (ʔehdacho) as a National Historic Park (amendment Motion #147 to Motion #112). Délı̨ne Land Corporation approves the park boundary and the request to withdraw subsurface rights under Délı̨ne lands and surface and subsurface rights on Crown lands within the park boundary (Motion #156).

May 12, 2000 – Premier Stephen Kakfwi states in a letter that the National Historic Park legislation would be the most appropriate legislation to protect Sahoyúé-ʔehdacho and supports the five year interim land withdrawal.

June 7, 2000 – Letter from Délı̨ne Dene Band Council requesting Canadian Heritage be the sponsoring agency for a five year land withdrawal of both surface and subsurface rights of the Crown lands and subsurface rights of the Sahtu to provide interim protection for the site so that detailed evaluations of the site can be completed without further dispositions being issued.

July 23, 2000 – DIAND Minister Nault visited the community of Délı̨ne. Chief Leroy Andre discussed concerns over PAS funding and the need for immediate interim withdrawal of Sahoyúé-ʔehdacho. Minister states that withdrawal is a simple matter and reaffirmed his commitment to the community of Délı̨ne and their efforts.

July 2000 – Conservation and Presentation Plan completed for Grizzly Bear Mountain/Scented Grass Hills National Historic Site.

September 2000 – Representatives from Délı̨ne, World Wildlife Fund, and the PAS Secretariat and Hon. Ethel Blondin-Andrew met with the Minister of Canadian Heritage to discuss Délı̨ne's proposal to formally protect Sahoyúé-ʔehdacho, and to request that Parks Canada partner with the community and sponsor an interim land withdrawal for the site. Parks Canada submits the formal request for interim land withdrawal to DIAND Minister following meeting.

October 2000 – Sahoyúé-ʔehdacho Working Group Formed. From October 2000 to 2007, the SEWG meets over 30 times in person and via teleconference. Meetings include numerous community presentations and consultations.

February 8, 2001 – Interim land withdrawal of Sahoyúé-ʔehdacho (P.C. 2001-204 expires in November 2005)

March 23, 2001 – Minister of Canadian Heritage Copps attends Sahoyúé-ʔehdacho Interim Land Withdrawal celebration in Délı̨ne.

2002 – Phase I Non-Renewable Assessment Report is completed.

2002 - Sahoyúé Phase II Non-Renewable Resource Assessment field work.

2003 - ʔehdacho Phase II Non-Renewable Resource Assessment field work.

February 2003 – Preliminary Ecological Assessment is completed.

December 19, 2003 – Report on Cultural Values is completed.

March 31, 2004 – Sierra Legal Defense Fund provides opinion letter to CPAWS on legal options for long term surface and subsurface protection of Sahoyúé-§ehdacho

August 13, 2004 – Letter to the Right Honourable Paul Martin, from Raymond Taniton, Délı̨ne Land Corporation, raising awareness of Sahoyúé-ʔehdacho.

September 20, 2004 – Letter from Bob Overvold, Regional Director General, DIAND to Christina Cameron, Director General, National Historic Sites, requesting the Parks Canada Management Options Paper be released to Délı̨ne and the working group.
September 20, 2004 – Commemorative Integrity Statement signed by Délı̨ne First Nation Chief Raymond Tutcho, DLC President Raymond Taniton, PC Field Unit Supervisor Josie Weninger, and NHS-PC Director General Christina Cameron.

October 4, 2004 – Déline AGM motion to extend the interim land withdrawal.

November 9, 2004 – Letter from Déline Land Corporation to Stephane Dion, Minister of the Environment to request a five-year interim land withdrawal extension.

December 24, 2004 – letter to Leroy Andre, President of the Déline Land Corporation from Alan Latourelle, CEO, Parks Canada reaffirming commitments made in the November meeting, including working with INAC to achieve the extension of the Interim Land Withdrawal, funding to continue work, and a commitment to share the paper on management options once the mandate and funding for long-term protection is confirmed.

2005 – Phase II Non-renewable resource assessment report complete.

January 13, 2005 – letter from Raymond Taniton, President Déline Land Corporation, to Alan Latourelle, CEO Parks Canada, requesting an extension for 5 years of the interim land withdrawal extension.

February 28, 2005 – Letter from CEO Parks Canada, Alan Latourelle, to Deputy Minister of DIAND, Michael Horgan, to request that land withdrawal order be extended for 5 years

March, 2005 – Parks Canada does not receive funding to sponsor Sahoyúé-?ehdacho and offer permanent protection through their legislation. The SEWG regroups to decide on next steps.

April, 2005 – Déline leaders travel to Ottawa to meet with Parks Canada CEO and senior officials to discuss Options paper and long term funding. Parks Canada Management Options Paper provided to the SEWG. The options presented are consistent with previously-presented options, and Parks Canada reconfirms its commitment with Déline.

July 2005 – Work on Phase 1 Renewable Resource Assessment started.

July 28, 2005 – Letter from GNWT-ENR Minister Miltenberger to Environment Minister Dion, encouraging him to continue seeking additional funding required for managing S/E and requesting confirmation of Parks Canada's commitment to protection.

August 2, 2005 – Environment Minister Dion visits Déline to sign cooperative management agreement for Tuktuk Nogait National Park Sahtu expansion. Déline representatives discuss Sahoyúé-?ehdacho with the Minister.

August 3, 2005 – follow-up letter sent from CPAWS to Environment Minister Dion to recap issues raised around support and funding for Sahoyúé-?ehdacho at multi-stakeholder meeting with Minister Dion in Yellowknife.

October 24-26, 2005 – Déline meeting and workshop on visioning, in preparation for Directions Confirming Workshop. Community open house was held to explain the current situation about discussions on protection and cooperative management and to allow community leaders to hear back from the community members.

November 8-10, 2005 – Directions Confirming Workshop in Déline, with all SEWG parties in attendance.

November 16, 2005 – Interim Land Withdrawal (Order in Council P.C. 2005-1900 November 1, 2005) extension granted by Order In Council, until November 2010.

January 18, 2006 – letter from Minister Dion to CPAWS-NWT acknowledging the importance of Sahoyúé-ʔehdacho and Parks Canada's commitment to the PAS process of protection.

April 2, 2006 - Parks Canada again does not receive funding to sponsor Sahoyúé-ʔehdacho.

June 28-29, 2006 – Déline representatives meet with Environment Minister Ambrose's staff and Parks Canada CEO in Ottawa to discuss Parks Canada's commitment and funding needs. Déline representatives meet with DIAND Minister Prentice's staff to discuss DIAND's support for protecting Sahoyúé-ʔehdacho.

July 4, 2006 – Preliminary Socio-Economic Assessment completed.

August 14, 2006 – letter from GNWT-ENR Minister Miltenberger to Environment Minister Ambrose, to support Déline's efforts toward protection, and to request a funding announcement during Minister Ambrose's visit to Yellowknife.

October 31, 2006 – Renewable Resource Assessment Complete

January 11, 2007 – Letter from Déline to new Environment Minister Baird requesting Meeting in Ottawa.

January 31-February 1, 2007 – Déline representatives met with Minister Baird, Environment Canada to discuss concrete steps to move Sahoyúé-ʔehdacho Candidate Protected Area forward, specifically need for long-term funding. Déline representatives meet with CEO Parks Canada in Ottawa to discuss funding and next steps for the long term protection of Sahoyúé-ehdacho.

March 5 - April 2, 2007 – Public Review of Sahoyúé-ʔehdacho Working Group Final Report.

March 11, 2007 – Minister of Environment Canada, the President of Déline Land Corporation and the Chief of Déline First Nations sign MOU outlining their commitment to work towards permanently protecting and cooperatively managing Sahoyúé-ʔehdacho National Historic Site of Canada. Announcement includes funding commitment of five million dollars over 5 years and seven hundred thousand dollars per year thereafter.

April 11, 2007 – SEWG meets in Déline to consider comments from the Public review of the SEWG Draft Final Report and to finalize the report.

November 27, 2007 – SEWG Final Report released.

April 2007 – Sahoyúé-ʔehdacho protected area co-operative management agreement in negotiation process, following Article 17 of the *Sahtu Dene and Métis Comprehensive Land Claim Agreement*

Appendix J.

Elements of Commemorative Integrity for Sahoyúé-ʔehdacho

(Source: Commemorative Integrity Statement: Sahoyúé (Grizzly Bear Mountain) - ʔehdacho (Scented Grass Hills) National Historic Site of Canada 2004)

2. THE FIRST ELEMENT OF COMMEMORATIVE INTEGRITY: NATIONALLY-SIGNIFICANT CULTURAL RESOURCES ARE NEITHER IMPAIRED NOR UNDER THREAT

2.1 SAHOYÚÉ-ʔEHDACHO AS A WHOLE

The Sahtugot'ine have used Sahoyúé-ʔehdacho since time immemorial. These are two of the most sacred places in all of the Sahtu region. Moreover, it is through these types of places, and the stories associated with them, that the elders pass on the culture and "traditional knowledge" of the Sahtugot'ine -- its history, cosmology, spiritual values, law, ethics, land use, and traditional life-styles. The Sahoyúé-ʔehdacho Site is of national historic significance because it helps explain and contribute to an understanding -- in Dene and non-Dene peoples -- of the cultural heritage of the Sahtugot'ine. It thus contributes to a better understanding of the collective heritage of all Canadians, and indeed of all peoples.

The Designated Place of Sahoyúé-ʔehdacho is valued for:

a) The land/cultural landscape of Sahoyúé-ʔehdacho, as one of the fundamental bases upon which Sahtugot'ine culture is founded.

b) The cultural values of Sahoyúé-ʔehdacho as defined in the statement of commemorative intent; these are expressed through the inter-relationship between the landscape, oral histories, graves and cultural resources, such as trails and cabins that help to explain and contribute to an understanding of the origin, spiritual values, lifestyle and land-use of the Sahtugot'ine.

c) Traditional lifestyle and land uses, including the telling of stories and passing them on to future generations.

d) Its importance as a place where environmental quality allows traditional lifestyle and landuse activities to continue to be practiced by present and future generations of the Sahtugot'ine.

2.1.1 Management Objectives/Indicators

The Designated Place of Sahoyúé-ʔehdacho will be unimpaired and not under threat when:

a) Environmental quality is maintained to a standard where traditional lifestyle and land-use activities can continue to be practiced by present and future generations of the Sahtugot'ine.

b) Forms of land-use which are inconsistent with the values inherent in the commemorative intent for the site do not occur. Examples of inconsistent land-use include mineral exploration, oil and gas development.

c) The cultural values of Sahoyúé-ʔehdacho as defined in the statement of commemorative intent (SOCI) and embodied in Sahoyúé-ʔehdacho are maintained and strengthened.

d) Management of the national historic site is consistent with and respects the continued practice of traditional lifestyle and land-use by the Sahtugot'ine, including the role of the elders at Sahoyúé-ʔehdacho and the transmission of this heritage to the younger generation.

e) The oral histories related to these sites continue to be told and passed on to the future generations of the Sahtugot'ine.

f) As many Canadians and visitors as possible will be aware of, appreciate and understand the important relationship between the Sahtugot'ine and the land.

2.2 CULTURAL RESOURCES OF NATIONAL SIGNIFICANCE

2.2.1 Landscape Features

The nationally-significant landscape values of Sahoyúé-ʔehdacho include:

a) The currently high standards of environmental quality and biodiversity which are attained at the Site that are integral to the Sahtugot'ine traditional lifestyle activities and land-use. These contribute to an appreciation and understanding of the important relationship between the Sahtugot'ine and Sahoyúé-ʔehdacho .

b) The fact that the site is relatively untouched by industrial development with the result that the Sahtugot'ine have maintained and practice traditional lifestyle and land-uses.

c) Specific sacred sites and places of power within the designated place associated with the Sahtugot'ine. These help to explain and contribute to a better understanding of their origin, traditions and lifestyle. These places are everywhere within the designated place and new sites are being added.

d) Specific places with which specific stories are associated and at which these stories are told. These places include the traditional hunting, trapping, fishing, plant harvesting for medicinal purposes and camping sites, as well as the portages and trails used during these activities in order to access the land and its resources.

2.2.2 Oral Histories

The nationally-significant oral history values of Sahoyúé-ʔehdacho include:

a) The stories of the Sahtugot'ine, which are associated with specific places in Sahoyúé-ʔehdacho , from which the history, cosmology, spiritual/cultural/ethical values, law, land use, and traditional life-styles of the Sahtugot'ine are transmitted from the elders to the younger generation.

b) Their value as a means of explaining and contributing to an understanding of the culture and language of the Sahtugot'ine, including traditional law, knowledge, land-use practices, and the cultural/spiritual/ethical values associated with them.

c) The living practice of passing on the stories to future generations both at the site and off.

2.2.3 Cultural and Archaeological Resources (Movable and In-Situ)

This description applies to the consecrated spaces used for burials and the visible and distinctive features found within them. (Note that Parks Canada's policy does not treat human remains as cultural resources). These include the nationally-significant cultural and archaeological resources and their values in relation to Sahoyúé-ʔehdacho . They are valued for marking the physical testimony and manifestation of stories on the land, including, by way of example:

a) Tent rings, teepee poles, cabin sites and their strategic location for offshore fishing and other resource harvesting areas as physical evidence of places of the Sahtugot'ine culture and its relationship to the land.

b) Implements and tools including ruined fish traps as physical evidence of the Sahtugot'ine culture and relationship to the land and their contribution to understanding the Sahtugot'ine way of life.

c) Grave sites associated with specific places in Sahoyúé-ʔehdacho ; their physical evidence and symbolic importance to the history of the Sahtugot'ine.

d) Portages and trails, as physical evidence written on the land of the Sahtugot'ine culture and its relationship to the land.

e) Precontact sites as testimony to the long occupation of the area by the Sahtugot'ine since time immemorial and their continued use over time.

2.2.4 Management Objectives/Indicators

The commemorative integrity of Sahoyúé-ʔehdacho will be achieved when:

a) Management decisions with respect to cultural resources are based on adequate and sound information and are made in accordance with the principles and practice of the CRM Policy.

b) Specific landscape features (including specific sacred sites, places of power, story locations etc.), and built and archaeological resources (including portages and trails etc...), along with their associated values are treated/respected as part of the living heritage of the Sahtugot'ine.

c) A more complete inventory/evaluation of site resources is completed.

d) Opportunities are made available for young people from Déline to regularly visit Sahoyúé-ʔehdacho, to spend time on the land and to use their language. The young people in Délįne are aware of Sahtugot'ine heritage, including traditional place names associated with Sahoyúé-ʔehdacho.

e) Mechanisms are in place and applied to ensure the present-day high levels of environmental quality and biodiversity standards are retained and protected.

f) The resources and their associated values are not lost, impaired or threatened from natural processes, for example erosion and decay, within or outside of the site.

g) The cultural resources and their associated values are not lost, impaired or threatened from human actions within or outside of the site.

h) The historic values of the resources are communicated to visitors and the general public. The public is aware of and appreciate the heritage of the Sahtugot'ine.

i) Visitors are able to hear of and, where appropriate, witness Sahtugot'ine cultural practices at Sahoyúé-ʔehdacho. Visitors respect and do not interfere with Sahtugot'ine cultural practices and their transmission to the younger generation.

j) Visitor numbers and activities do not impair the commemorative integrity of Sahoyúé-ʔehdacho.

3. THE SECOND ELEMENT OF COMMEMORATIVE INTEGRITY: THE REASONS FOR THE SITE'S NATIONAL SIGNIFICANCE ARE EFFECTIVELY COMMUNICATED TO THE PUBLIC

3.1 MESSAGES OF NATIONAL SIGNIFICANCE:

The following message of national significance will be communicated at Sahoyúé-ʔehdacho:

The cultural values of Grizzly Bear Mountain and Scented Grass Hills – expressed through the inter-relationship between the landscape, oral histories, graves and cultural resources, such as trails and cabins – help to explain and contribute to an understanding of the origin, spiritual values, lifestyle and land-use of the Sahtugot'ine.

3.1.1 CONTEXT MESSAGES

3.1.1.1 Oral History

a) The stories of the Sahtugot'ine are one of the fundamental repositories of their culture. Through long periods of time, the elders have carefully passed these stories on to the younger generations. These stories contain the history of the Sahtugot'ine, their traditional beliefs about their origins and relationship with spiritual beings and the Creator, their philosophy, land use and survival lessons.

Many of these stories are associated with and are told at specific places in Sahoyúé-ʔehdacho. Many are difficult to fathom: they are generally given to the younger generation without explanation, to encourage independent thought, reflection and observation.

b) Today, Sahoyúé-ʔehdacho remains relatively untouched by industrial civilization. The evidence of their ancestors is thus visible everywhere to Dene visiting these places today, particularly the elders. The circular pattern of stones that comprises an ancient tent ring may be hundreds or even thousands of years old. Thus, the Sahtugot'ine read their history in the land and in the stories associated with it.

c) The stories of the Sahtugot'ine reach back to a time -- the "Old World" -- when the Dene believe people and animals lived together, could speak to each other and could change their form. In the subsequent period, the "New World" of which we are part, people and animals have adopted their final form and live in harmony, by rules of mutual respect. Sahtugot'ine hunters are guided by these rules of conduct today; they believe that with the observance of these rules, animals give themselves to them for food. But nothing is to be wasted, and the bones of an animal are to be given back respectfully to the earth.

d) Sahoyúé-ʔehdacho is particularly important as a place of teaching and of learning.
Through the stories and the example of the elders, younger generations of Dene learn the ethical norms and cultural values of the Dene (sharing, cooperation, respect for others, independent thought and observation, and stewardship for the land)

3.1.1.2 Lifestyle and Land-Use of the Sahtugot'ine

a) The Sahtugot'ine have used Sahoyúé-ʔehdacho since time immemorial. These are two of the most sacred places in all of the Sahtu region. Moreover, it is through these places, and the stories associated with them, that the elders pass on the culture and "traditional knowledge" of the Sahtugot'ine -- its history, cosmology, spiritual values, law, ethics, land use, and traditional life-styles. These places fulfill many of the functions of the learning and worship centres of western cultures (schools, universities, libraries, museums, art galleries and cathedrals ...). They are of national historic significance because they help explain and contribute to an understanding -- in Dene and non-Dene -- of the spiritual and cultural heritage of the Sahtugot'ine. They help contribute to a better understanding of the collective heritage of all Canadians, and indeed of all peoples.

b) Great Bear Lake ("Sahtu") is of particular importance. It is considered the heart of the Sahtu region, sustaining all life within the region. It too must be treated with the utmost care and respect.

c) The traditional land management regime of the Sahtugot'ine was a self-regulatory one, based on strict laws and obligations between the Dene, the land and all other living beings. The Sahtugot'ine speak of the "Law of the Bear" -- and "Sahoyúé" in fact means "belonging to the Bear". The Sahtugot'ine elders tell us that the land, water, trees, fish, birds, insects, animals and humans ... -- are parts of the bear, belonging to the bear as surely as our fingers belong to our bodies. All things -- including humans -- are bound together by and subject to this natural Law. If we act contrary to the Law, destroying the earth, failing to care for and respect it, failing to keep it beautiful for all, failing to share it ..., then, like a cut in the skin of an organism, "the skin of the earth" will need to heal, and will always bear the scars of the wound. The Sahtugot'ine elders try to live by this Law today. They want to keep this Law intact and to bring all people -- Dene, non-Dene -- within it. They want to make all activities at Sahoyúé-?ehdacho subject to this Law.

d) The traditional life of the Sahtugot'ine, while rich and fulfilling, was also a hard one.
Winters are long and cold in the Sub-Arctic climate of the Sahtu. Regional bands were traditionally divided into several distinct family groups, each with its own hunting territory which it managed, as agreed among the elders. There was also a division of labour between the men and the women of the society. The work of the women was particularly hard; they were in charge of maintaining the camps and providing for and educating the children when the men were away hunting, often for weeks at a time.
e) The traditional hunting, fishing and gathering way of life of the Sahtugot'ine was based on generations of observation of the natural environment, an intimate understanding of local resources and their seasonal availability, cooperation and sharing, great skill in making tools, hunting, traveling and surviving, and on the accurate transmission of this knowledge from one generation to the next. Sahoyúé-?ehdacho has been commemorated to preserve this tradition, and to aid in the public's appreciation of it.

3.1.1.3 Cultural and Spiritual Values

a) While the Sahtugot'ine believe that all of the land is sacred and to be treated with respect and care, Sahoyúé-?ehdacho are two of the most sacred and beautiful of all places to them. They are examples of places to which the Dene are spiritually linked -- part of what it means to be Dene. They are examples of places to which the Dene go to renew themselves, to heal, and to understand their relationship with the Creator.

b) In Sahtugot'ine cosmology, the land is a living thing, inhabited by many entities, both seen and unseen. Traveling on the land, one must pay one's respect to these beings (forces, places). Some places are to be avoided, and others (e.g. grave sites and spiritual sites) are to be treated with particular respect.

3.2 MANAGEMENT OBJECTIVES/INDICATORS

The reasons for the site's national historic significance are effectively communicated to the public when:

a) The overall heritage presentation experience conveys the reasons for the national significance of the site;

b) Visitors and non-visitors, who experience heritage presentation, and the site stewards understand the reasons for the national historic significance of the site; and

c) The effective communication of messages and their understanding is monitored.

4. THE THIRD ELEMENT OF COMMEMORATIVE INTEGRITY: THE SITE'S HERITAGE VALUES ARE RESPECTED BY ALL WHOSE DECISIONS OR ACTIONS AFFECT THE SITE

4.1 HERITAGE VALUES

Given the comprehensiveness of the Minister's -- and the Historic Sites and Monuments Board of Canada's -- Statement of Commemorative Intent, no "other" heritage values have been identified to date for Sahoyúé-ʔehdacho. Land and water management decisions made outside of Sahoyúé-ʔehdacho will be critical to the commemorative integrity of this site. In this regard, it will be particularly important that the authorities recognized in the *Sahtugot'ine and Métis Comprehensive Land Claim Agreement* be aware of and respect the values of this site. These authorities include the Sahtu Land Use Planning Board, Sahtu Land and Water Board, Sahtu Renewable Resource Board, Mackenzie Valley Environmental Impact Review Board, the Surface Rights Board, the Déline Land Corporation, and the several departments of the Federal and Territorial Governments.

4.2 OTHER MESSAGES

The following messages will be communicated at Sahoyúé-ʔehdacho:

a) All of the land is sacred to the Sahtugot'ine. It has been used for time immemorial, and Sahoyúé-ʔehdacho are spiritually and historically linked to this larger homeland. The portages across the necks of Sahoyúé-ʔehdacho, for example, are parts of a system of travel routes reaching throughout the Sahtu homeland and beyond. This entire homeland is alive with Dene names and stories, that weave together with those at Sahoyúé-ʔehdacho, like the parts of a vast organism.

b) Sahoyúé-ʔehdacho is also part of a larger family of national historic sites associated with Sahtugot'ine culture and history, and with the relationship that developed during the 19th century between the Sahtugot'ine and travelers from Europe and southern Canada. These related national historic sites are: - The Déline Fishery/Franklin's Fort National Historic Site; Sir John Franklin's 1825/26 and 26/27 Fort and overwintering quarters along with the Déline Traditional Dene Fishery which supported and contributed in large measure to the success of the second Franklin expedition, and which, in turn, contributed to the perception of the Sahtugot'ine as a distinct people.

c) Sahoyúé-ʔehdacho is located within the Sahtu Settlement Area. On September 6, 1993, representatives of the Government of Canada, the Government of the Northwest Territories and the Dene and Métis of the Sahtu area of the Northwest Territories signed the Sahtugot'ine and Métis Comprehensive Land Claim Agreement. It is an historic agreement. Among other things, it calls for the creation of a new land and resource management regime, and a new relationship between the Dene, the Métis and other Canadians in the Sahtu Settlement Area.

d) The commemoration of Sahoyúé-ʔehdacho is part of this new and emerging relationship. The Site is identified in and is subject to the provisions of the *Sahtugot'ine and Métis Comprehensive Land Claim Agreement*. Its commemoration is part of Canada's increasing recognition of the contribution of aboriginal heritage -- and places fundamental to aboriginal heritage -- to the heritage of all Canadians.